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ABSTRACT

This collection of 10 author-contributed papers addresses various aspects of programming for students with behavioral disorders. Papers have the following titles and authors: (1) "Teacher Ratings of School Survival Skills and Setting Demands" (Bill Bursuck et al.); (2) "Toward Least Restrictive Curriculum for Behaviorally Disordered Adolescents" (Virginia Laycok and Lori Korinek); (3) "An Investigation of Social Networks of Behaviorally Disordered and Normal Adolescents: Implications for Prevention and Intervention" (Rober Gable et al.); (4) "The Personal-Communication Model for Planned Social Development in the Classroom" (James R. Sanders); (5) "The Development of an Interactive Video Rating Scale To Measure Social Skills in Early Adolescents" (Alan Bain); (6) "What Happens after the First Job Placement: Vocational Transitioning among Severely Emotionally Disturbed and Behaviorally Disordered Adolescents" (Judith A. Cook et al.); (7) "Alternative Schools: Alternative Programs or Just Alternative Environments?" (Mary W. Schmidt et al.); (8) "Providing Interagency Mental Health Services to Emotionally/Behaviorally Disordered Students in a Rural Setting" (Barbara E. Bahnson and Ruth M. White); (9) "Parents and Teachers as Self-Evaluation Trainers for Adolescents with Behavioral Disorders" (Susan Rovet Polirstok); and (10) "Teacher Competency Testing: What Teachers of Students with Behavioral Disorders Need To Know" (Roberta S. Ramsey et al.). (DB)

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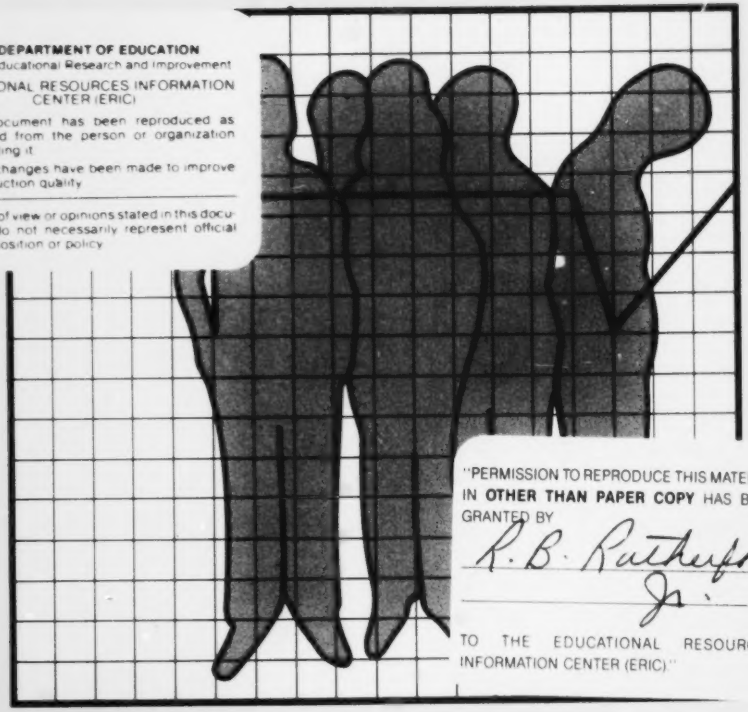

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Council for Children with Behavioral Disorders

The Council for Children with Behavioral Disorders is a professional organization for those interested in the education and well-being of behaviorally disordered individuals. The Council functions to develop lines of communication and interaction among professionals, disciplines and organizations: to promote research and development; to support legislation for services to these children. Toward this end the Council publishes in relation to these interests. An organization of nearly 8,000 members, the Council maintains central offices at 1920 Association Drive Reston, Virginia 22091.

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Edited by
Sheldon L. Braaten
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Preface

What is working with troubled youth really all about? Does what we strive for, and do, really make a difference? Is it really possible for youth workers and advocates to fulfill all of society's demands and keep up with the growing list of regulations without proportional increases in resources? Discouraging evidence is all around us. One merely has to occasionally read the paper or watch the evening news to be aware of story after story about troubled youth and reports on school dropouts, teenage pregnancy, drug abuse, street gangs, prostitution, violence, unemployment and suicide.

It concerns me that in the vast majority of conversations I have with persons working in all of the youth service roles, people want to focus on the large number of youth in trouble and the severity of their problems. We seem to seek continuous verification from one another of perceptions regarding the enormity of the task and the inadequacy of our service systems. It concerns me further, that as we gather in groups large and small, formal and informal, to seek support and hopefully learn of some new effective strategy, what too often happens is an exchange of "ain't it awful," or "I've got a story that can top yours". Too seldom do we share in the joy of someone's success, or vicariously benefit from the energy in one of our colleague's enthusiasm for her/his job. Candidly, some days we feel too overwhelmed, underpaid and unappreciated to want to hear about successes. It is on such a day that we need to be reminded what our work is about and why we struggle for any information that may be helpful.

Most recently it happened for me when I was sitting in my office one August day trying to tend to the myriad of tasks necessary to prepare for the opening of the new school year. My secretary interrupted me and announced that there was someone waiting who insisted on seeing me. Grudgingly I put on a pleasant face and walked out to meet my unscheduled visitor. To my surprise is was Brian, a former student who had been gone from our program for over two years. He was smiling from ear to ear when he said, "Mr. Braaten I have to talk to you. I have to talk to you." My first thought was, what does he need now? But, he seemed so happy. Brian was a student that took us on an emotional rollercoaster for over three years. He alternated between being in serious trouble and doing extremely well in school. He parted from us on a very high note when we transferred him back to his neighborhood high school and we were all so sure that he would hold it together and graduate. Instead he renewed relationships with drug abusing friends and dropped out

of school and got into further trouble with the law. I invited him in, and when we got seated in my office, Brian could hardly hold himself back. "I have to tell you that I made some bad decisions," he said, "but, I've been through drug treatment and I have been clean for a full year. And guess what. Today I enrolled in college. I'm a college student!" Somehow, whatever was burdening me only moments earlier didn't seem very important. Brian went on to tell me how he believed that it was what he had learned while he was in our school that made the difference, and that if it had not been for us he would not have made it. That was one of the moments when I thought, Brian is what this work is about... It does make a difference.

We are not in a business of wholesale change and canned prescriptions, but rather we are engaged with individual youth and their personal struggles for a better quality or life. It is both exasperating and exhilarating. We have no sure techniques or guarantees-only the faith and hope that prudent use of our knowledge and skills will make a difference. The collection of articles in this book is an expression of each author's faith and hope that their contribution to our collective knowledge will make a difference for some Brian somewhere.

I want to thank the authors in this volume for their contribution, as well as the many others who submitted papers for review and the many people who helped to organize the fourth (inter)national conference on adolescence with behavioral disorders. Further, I want to thank the Council for Children with Behavioral Disorders for endorsing this volume and their editorial staff for their helpful critiques. I especially want to thank Thomas Reilly for his endless enthusiasm and work throughout this project, and to Rob Rutherford and Sam DiGangi for their valuable assistance in completing volume 4. Finally, I want to thank and commend Anne Rodes for her talent in technical editing.

Sheldon Braaten

Teacher Ratings of School Survival Skills and Setting Demands in Junior High School Settings

Bill Bursuck, Diane Kinder, and Michael H. Epstein

ABSTRACT

This article describes the expectations and classroom demands of regular and special education junior high school teachers. The School Survival Skills Questionnaire was completed by 156 regular and 16 special education teachers. Very few significant differences were noted among these educators. Both groups valued punctuality, organization skills, and compliance behaviors; less importance was placed on social skills. Results are discussed in terms of educating pupils with behavioral disorders.

Recent research indicates that pupils with behavioral disorders have not been as well integrated into regular education programs as other pupils with mild learning handicaps (Office of Special Education and Rehabilitation Services, 1986). According to recent child count figures, 93% of handicapped pupils are educated in regular education settings, but only 80% of pupils with behavioral disorders are educated in the same settings. Further, while 68% of all handicapped pupils receive a majority of their education in the regular classroom, only 44% of pupils with behavioral disorders are mainstreamed.

While the issue of mainstreaming pupils with behavioral disorders is a complex one that defies unidimensional explanations, the data do seem to underscore the need to provide these youngsters with supported services designed specifically to increase participation in the regular education program. A likely starting point in developing appropriate educational interventions for students with behavioral disorders is to better understand the expectations that are placed on these pupils in regular education settings. This may be particularly important in junior and senior high school settings which demand considerably more self-control than the elementary school (Kerr & Zigmond, 1986; Robinson, Braxdale, & Colson, 1985). Pupils are expected to attend classes, monitor assignments, study for tests, and in general, take an active, independent role in their own learning. There is recent evidence to suggest that competence in these skills can make the difference between a successful and unsuccessful high school experience (Brown, Kerr, Zigmond, & Harris, 1984; Kerr, Zigmond, Schaeffer & Brown, 1986).

Most research in the area of assessing the expectations of high school teachers

has been done using the School Survival Skills Questionnaire (Brown, et. al, 1984). The scale was constructed by asking regular education high school teachers to evaluate the importance of various pupil behaviors with respect to school success. Brown et al (1984) found the following behaviors mentioned most frequently by teachers: meets due dates, arrives at school on time, attends class every day, accepts consequences for irresponsible behavior exhibits interest in improving academic performance, behaves appropriately in a variety of settings, formulates plans for achieving goals, and thinks about future plans. Still, these authors' data were collected in urban high school settings. It is unclear whether their findings apply to junior high school in suburban and rural settings as well. Certainly, the identification of pupil behaviors critical for success in junior high school would be important information for special education teachers involved in mainstreaming their students with behavioral disorders. Further, it is important to determine whether significant differences exist between regular and special educators with respect to the perceived importance of these behaviors, as a significant discrepancy in this area could impede the mainstreaming process.

In addition to studying teacher expectations, it is important to identify the specific academic demands of secondary school classrooms. Unfortunately, a majority of the classroom demands identified by researchers to date are general in nature and do not lend themselves well to formulating effective instructional interventions (Deshler, Putnam, & Bulgren, 1985). Since adolescents with behavioral disorders have been shown to have significant academic problems (Epstein, Kinder & Bursuck, 1989), the precise nature of these academic demands needs to be specified prior to developing successful interventions for these pupils in regular classrooms.

The main purpose of the present study was to extend the teacher expectations literature by examining the views of junior high school teachers with respect to skills needed for school success. A second purpose was to contrast the views of regular and special educators on these variables. A third purpose was to gather information on such setting demands as grading practices, tests, and assignments in junior high school environments, information which is lacking in the literature.

METHOD

Participants

Regular education and special education teachers at 16 junior high schools (grades 6-8; 11 suburban, 4 rural, 1 urban) located in the Northern Illinois area were asked to complete a checklist. The schools' students were predominantly white, middle-class. Completed surveys were received from 156 regular education and 16 special education teachers. Demographic information on the special and regular education teachers follows: Special Education—age (x = 34.38, SD = 8.25); sex (male = 3, female = 13); years taught (x = 8.69, SD = 6.18); and setting (suburban 13, rural = 2, urban = 1); Regular Education—age (x = 41.57; SD = 8.61); sex (male = 69, female = 87); years taught (x= 15.59, SD = 8.15) and setting (suburban = 104; rural = 37, urban = 15). In addition, all special education teachers were working in either resource or self-

contained classrooms for students with mild learning and behavior handicaps.

Instrument

The School Survival Skills Questionnaire (SSSQ) is a two-part instrument used to assess student behavior that may facilitate or impede school success. Through a series of investigations involving teacher-completed checklists, direct observation, and teacher and student interviews (Kerr et. al, 1986), the scale has been found to be valid for assessing student skills that differentiate successful and unsuccessful pupils. Part One of the SSSQ contains 48 items which represent skills or behaviors associated with school success (e.g., handles criticism, turns in work on time). For these items the respondents were asked to indicate on a 3-point scale whether the items were very important (3), helpful (2), or not important (1) vis a vis success in their classrooms. Part Two of the SSSQ contains 21 items which represent school problems (e.g., is late to class, fails to finish work). Respondents were asked to rate whether each item was a serious problem (3), somewhat of a problem (2), or not a problem (1), with respect to whether or not they impeded success in their classrooms.

In order to gather information on the specific setting demands of junior high school classrooms, teachers were asked to respond to an additional 5 questions at the end of the SSSQ. The questions required teachers to estimate classtime devoted to large and small group instruction, how grades were earned, what types of tests and assignments were given, and how often written assignments were required.

RESULTS

Data for parts 1 and 2 of the SSSQ are shown in Tables 1 and 2 respectively. Teacher ratings of student behaviors were converted to rankings in the following manner. First, the frequency with which each behavior was rated by teachers as either "most important" or a "serious problem" was determined. These were then converted to percentages; thus, the percentage of both special and regular education teachers who judged the behavior as either "most important" or a "serious problem" was calculated for each item. These percentages were then used to determine the rankings that appear in Tables 1 and 2. For example, "turns in work on time" was rated as most important by the greatest number of regular (92.3%) and special (100%) educators. Therefore, that item was assigned the number one ranking for both types of educators. Similarly, "cannot read directions" was rated as a serious problem by the most regular educators (90.3%) and thus received a number one ranking.

One purpose of the present study was to contrast the overall ratings of different subgroups of regular educators. A series of comparisons were made based on age of teacher (3 groups), subjects taught (8 types), number of years taught (3 groups), and setting (3 groups). One-way analyses of variance were used to compare the ratings of the different groups. No significant differences were found in any of these comparisons for either the items associated with school success or the problem statements. The lack of differences indicates that regular junior high school teachers are a rather homogeneous group with respect to the skills they value as critical to student success.

TABLE 1

Behaviors Identified as Important to Success by Regular and Special Educator

Behavior	Ranked Importance		Percent Judging Behavior To Be Important to School Success	
	Regular Educators (N=156)	Special Educators (N+16)	Regular Educators (N+156)	Special Educators (N+16)
Turns in work on time	1	1	92.3	100
Goes to class every day	2	4	85.3	86.7
Accepts consequences of behavior	3	2	84.5	93.8
Organizes time and papers for studying	4	3	83.2	87.5
Arrives at school at time	5	8	73.6	75.0
Listens to a lecture and remembers what was heard	6	13.5	71.2	62.5
Plans steps to reach a goal	7	13.5	67.1	62.5
Writes so people can read it	8	5.5	65.4	81.3
Knows how well she or he is doing in school	9	8	60.9	75.0
Shows interest in grades	10	8	60.7	75.0
Does what an adults says to do	11.5	13.5	59.6	62.5
Has an adult in the school who is interested in her or him	11.5	13.5	59.6	62.5
Answers when someone speaks	13	18.5	58.7	60.0
Handles criticism	14	5.5	57.1	81.3
Keeps track of work in an assignment book	15	18.5	56.1	60.0
Knows when to leave someone alone	16	13.5	54.8	62.5
Waits for teacher's permission before speaking out	17	13.5	51.0	62.5
Knows what things she or he does well	18	22.5	50.3	50.0
Handles getting angry or upset in a way that others think is okay	19	13.5	49.4	62.5
Takes good care of other people's things	20.5	13.5	48.7	62.5
Has some close friends	20.5	22.5	48.7	50.0
Is polite	22	34	47.4	25.0
Raises hand to get teacher's attention	23.5	20	43.6	56.3
Talks calmly to an adult when she or he feels unfairly treated	23.5	25.5	43.6	43.8
Is good at taking tests	25	25.5	43.0	43.8
Keeps busy while waiting for the teachers help	26	34	40	25
Is a good sport about winning and losing	27	22.5	38	50
Stays cool in a tough situation	28	22.5	36.5	50
Looks at a person when talking	28	28	33.3	31.3

Gives opinions in class even if no one else agrees	30	34	32.5	25.0
Turns in neat papers	31	28	32.1	31.3
Has a sense of humor	32	43.5	29.5	12.5
Volunteers to answer teacher's	33	43.5	28.9	12.5
Can guess the questions a teacher might ask on a test	34	39	21.3	18.8
Has some ideas about what to do after leaving high school	35	34	20.5	25
Figures out how people will react to her or him	36	39	19.9	18.8
Knows how someone feels and says the right thing	37	38	18.8	18.8
Offers help when a person has a problem	38	39	18.1	18.8
Sticks up for a friend	39	43.5	16.7	12.5
Does a favor for a friend even when it's a hassle	40	47.5	16.1	0
Asks to be included in activities with a friend	41	28	15.4	31.25
Has both male and female friends	42	43.5	14.7	12.5
Goes up and talks to teachers and other adults in the building	43	47.5	13.6	0
Pays attention to appearance	44	31	12.9	26.7
Behaves differently with some teachers than with others	45	30	12.7	28.6
Is pleased about other people's achievements	46	46	12.2	6.3
Can calm down someone who is upset or angry	47	34	11.6	25
Figures out people's moods	48	39	8.4	18.8

T tests were used to compare the ratings of regular and special educators. No significant differences were found on either the total number of items identified as most important or as serious problems. A *Z* test for proportions was used to compare the ratings of special and regular educators, item by item. To avoid alpha slippage, the alpha level was set at .01. No significant differences were found between regular and special educators.

Table 3 presents regular and special education teacher estimates of how students spend class time, how grades are determined, the types of tests given, and the types of tasks assigned. *T* tests were used to compare the estimates, and because of the large number of contrasts, alpha was again set at $p = .01$. Only on 3 items, all involving how grades were awarded, were any significant differences found. It appears that regular educators place more emphasis on tests in assigning grades, whereas special educators are more concerned with assignments/homework and classroom behavior. Teachers were also asked to estimate how often (e.g., once a week, once a term) they assign selected written assignments (e.g., short answers, essays). Chi-square analyses were used to test for any differences between regular and special

educators. All comparisons were nonsignificant.

TABLE 2

Behaviors Identified as Serious Problems for School Success by Regular and Special Educators

Behavior	Ranked Importance		Percent Judging Behavior To Be A Problem For School Success	
	Regular Educators (N=156)	Special Educators (N+16)	Regular Educators (N+156)	Special Educators (N+16)
Cannot read directions	1	3	90.3	87.5
Fails to finish work	2	3	85.2	87.5
Does not bring pencils, paper or books for class	3	3	84.0	87.5
Gives "back talk" to teacher	4	6.5	81.2	81.3
Falls asleep in class	5	3	80.7	87.5
Does not ask for teacher's help even when it is needed	6	9.5	69.9	68.8
Gives up quickly if faced with a problem	7	8	68.0	75.0
Makes poor grades	8	3	60.7	87.5
Cannot make decisions	9	6.5	53.2	81.3
Cannot work alone	10	11	52.6	62.5
Cannot take notes	11	14	50.3	31.3
Irritates others	12	12	48.7	50.0
Is late to class	13	9.5	40.7	68.8
Does not accept people who are different	14	15	39.7	26.7
Lets others bother her or him while working	15	13	37.4	40.0
Does not know how to use the library	16	20	34.0	12.5
Laughs when things aren't funny	17	16	22.1	25.0
Gets out of seat without asking	18	17	18.2	20.0
Makes mistakes through quick decisions	19	18.5	15.4	18.8
Does not belong to a group, club, or team	20	21	14.9	6.3

TABLE 3

Percentage of Estimated Setting Demands Placed on Junior High School Students

	Regular Educators (N + 152)		Special Educators (N + 13)	
	X	SD	X	SD
Students' class time				
Independent work	35.9	19.19	44.5	24.65
Group work	26.8	22.32	27.9	21.36
Lecture	27.8	17.84	23.3	19.91
Other	9.5	16.55	4.2	8.62
Determination of student's class time				
Tests*	37.9	20.87	20.1	16.61*
Assignments/homework*	29.0	22.16	47.8	25.04*
Class participation	13.3	19.98	10.8	9.76
Reports	7.1	11.60	4.7	6.86
Behavior*	43.6	7.77	11.2	21.42*
Attendance	0.8	3.12	1.2	3.00
Other	8.3	16.59	4.4	8.86
Type of tests given				
Multiple choice	27.8	23.78	28.3	19.81
Fill-in	22.0	21.99	23.8	23.94
True/false	15.2	17.77	23.8	28.21
Short answer	12.6	19.79	13.8	23.02
Essay	7.9	15.22	1.67	3.89
Other	14.5	30.25	8.8	28.77
Type of assignments given				
Short answers	29.5	26.03	34.0	23.67
Application problems	21.0	33.13	23.2	28.78
Vocabulary	12.2	14.89	12.3	12.04
Chapter outlines/notes	7.0	13.61	3.8	5.69
Research papers	4.2	8.78	2.3	4.35

*$p \leq .01$

DISCUSSION

In general, the results of this study indicate that significant agreement exists among regular educators, and between regular and special education teachers groups, as to what student behaviors are critical to success in junior high school settings. Certainly these important behaviors should be incorporated into the curriculum for adolescents with behavioral disorders. We believe that if special education teachers set curriculum objectives for increasing the highest ranked behaviors such as "turning in work on time," and decreasing the occurrence of such problem behaviors as "cannot read directions," the probability of handicapped pupils being successfully mainstreamed will be increased. Of course, ultimately, the utility of teaching such behaviors to adolescents with behavioral disorders will need to be verified empirically through a carefully designed program of experimental research.

The only area in which regular and special education teachers disagreed was in how classroom grades were determined. Regular educators appeared to place more emphasis on test results, whereas special educators put more

importance on assignments, homework, and classroom behavior. These differences in demands should be taken into consideration, particularly when these pupils are closer to being mainstreamed.

The most frequently rated items address the areas of punctuality, organizational skills, adult-pleasing behaviors, and self-management skills. Given the number of students that junior high school teachers instruct and the amount of academic content to be covered, it is not surprising that teachers emphasize organizational and compliance types of behavior. It is also important to note that these general findings are consistent with teacher standards at the elementary (Walker & Rankin, 1983) and high school (Kerr & Zigmond, 1986) levels.

The least frequently rated items also deserve some discussion. The items that regular and special educators identified as least important to school success are those relating to social skills. Specifically, of the 15 items marked by less than 25% of the teacher, 13 items involved peer and/or adult social interactions. The lack of importance attributed to social skills is of concern for several reasons. First, peer interactions are often the focal point of adolescent life. Students with inappropriate social skills may be excluded from formative developmental experiences. Second, investigators have found adequate social skills to be one of the most critical variables in the successful mainstreaming of pupils with mild handicaps (Gresham & Reschly, 1986). Third, failure of many pupils with behavioral disorders to stay in school, and ultimately obtain and maintain employment upon leaving school is related to social competence (Leone, 1984).

Given the apparent significance of social skills to the school and postschool adjustment of pupils with behavioral disorders, the lack of emphasis placed on this area by special education teachers is disturbing. Either these teachers are unaware of the *critical* contribution of social interaction skills to the overall development of pupils, or more likely, the considerable academic demands of secondary school settings may severely limit the amount of time available for social skills instruction. Of course, it may also be possible that the contribution of social skills to adolescent development has been overstated. Research will need to be undertaken to resolve this important issue, especially in view of the small sample of special educators used in this study.

It should be stated that the findings reported here are limited in several ways. First, the data were derived from teachers in several schools in one particular geographical area. Therefore, their views or expectations may not be applicable to teachers in other locales. Still, the data are remarkably similar to Kerr & Zigmond's (1986) data which were collected in urban settings. Second, the small number of special education teachers suggests that all results and comparisons with regular educators should be interpreted with caution. A third limitation is the use of teacher ratings as the only dependent variable. Self-report data may not be the most valid source of information on teacher expectations and should be supplemented with direct observation or teacher interview data.

Certainly these limitations suggest the need for the replication and extension of the present study. For example, it will be helpful to know if teachers rate the survival skills of adolescents with behavioral disorders differently from those of nonhandicapped and other mildly handicapped pupils. The relationship of teacher ratings on the SSSQ to observable classroom behaviors is in need of further study. Finally, the relationship between instructional setting

demands (e.g., teacher behavior, instructional materials, instructional groupings) and the classroom performance of adolescents with behavioral disorders needs to be clarified further.

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Bill Bursuck, Research Associate, Educational Research and Services Center, 425 Fisk Avenue, DeKalb, Illinois 60115.

Diane Kinder, Research Associate, Educational Research and Services Center, 425 Fisk Avenue, DeKalb, Illinois 60115.

Michael H. Epstein, Project Director, Educational Research and Services Center, 425 Fisk Avenue, DeKalb, Illinois 60115.

Toward Least Restrictive Curriculum for Behaviorally Disordered Adolescents

Virginia K. Laycock and Lori A. Jorinek

ABSTRACT

The challenges of educating emotionally disturbed/behaviorally disordered adolescents have been intensified by the lack of a well-defined conceptual framework for special education decision making. The authors propose a model for conceptualizing special education curriculum that clarifies relationships among sources of influence, curricular content, instructional methods, and service delivery systems. Application of the model promoted systematic movement toward less restrictive curriculum by analyzing factors that limit or expand student options for success in more integrated settings.

As teacher educators, clinical supervisors, consultants, and evaluators, the authors have frequently asked special educators, "How do you decide what to teach a particular student in your program?" The dialogue typically follows this circuitous pattern:

Special Educator:	"I address the student's IEP objectives."
Author:	"How were the IEP objectives defined?"
Special Educator:	"The IEP team determined priorities for the student's program.
Author:	"How were those priorities determined?"
Special Educator:	"The team considered assessment results to target major student needs."
Author:	"How were specific assessment measures selected?"
Special Educator:	"The team tried to use assessment approaches and instruments that would best address student needs."

As this dialogue illustrates, the individualized education program (IEP) model with its powerful emphasis on individualization may have left many special educators floundering in a curricular vacuum without a comprehensive framework for conceptualizing special education.

Curricular schemes that have been proposed have frequently focused on limited content areas, such as career education (Kokaska & Brolin, 1985) or social skills (Schumaker, Pederson,, Hazel, & Meyen, 1983), or been intended for specific categories of exceptionality, such as severely/profoundly handicapped (Snell, 1987; Van Etten, Arkell, & Van Etten, 1980) or learning disabled (Alley & Desher, 1979; Smith, 1983). Recent efforts by Deshler, Schumaker, Lenz, and Ellis (1984) and Zigmond, Sansone, Miller, Donahoe, and Kohnke (1986) have included more comprehensive articulation of program options and delineation of their respective advantages and disadvantages for learning disabled adolescents. Polloway, Patton, Epstein, and Smith (1989) have extended the concept of comprehensive curriculum to identification of alternative orientations for subgroups of mildly handicapped students of varying ages.

Although these authors have advanced understanding of the range of available program options, curriculum itself has seldom been distinguished clearly from related aspects of programming such as service delivery systems, instructional methods, and content areas. For example, descriptions of curricular options typically have included the tutorial approach as an alternative along with basic skill, social, functional, and other curricular models. While the tutorial approach is widely used with handicapped adolescents, it is nonetheless an instructional rather than a curricular option since it defines primarily a method of teaching rather than the intended learning outcomes—the "how" instead of the "what". More precise clarification of concepts and relationships among curricular options, content areas, instructional methods, and service delivery systems is necessary in order to ensure reasonable programming decisions.

The need for a well-defined contextual framework is particularly acute for educators of emotionally disturbed/behaviorally disordered (ED/BD) adolescents. Even the primary mission or purpose of special education for ED/BD students has been obscured by varying theoretical perspectives and intervention approaches. As a result, programs may address academic versus social/effective/behavioral needs in haphazard fashion. Such lack of systematic attention to all necessary components may in fact increase the restrictiveness of educational programming. Not only are ED/BD students likely to be served in more segregated settings with little opportunity for interface with nonhandicapped peers (Epstein, Denny, Kinder, Singhi & Deitz, 1989), but they are also likely to experience frequent and abrupt transitions in placement throughout their school careers (Laycok & Tonelson, 1985). These students' options may be further limited by curricular that fail to equip them to negotiate demands of integrated or less restrictive settings. To address these unique challenges of educating ED/BD adolescents, a conceptual model that acknowledges a full range of curricular options and accommodates changing priorities for individual student programs is needed. Provision of least restrictive curriculum is as critical for appropriate educational programming as placement in the least restrictive environment.

A PROPOSED MODEL FOR CONCEPTUALIZING SPECIAL EDUCATION CURRICULUM

With attention to the aforementioned concerns, the authors propose the model for conceptualizing special education curriculum presented in Figure 1. Throughout this paper curriculum is defined as a structured series of intended learning outcomes (Johnson, 1968). Concentric circles are used to depict a series of distinct but interrelated areas for decision making in developing least restrictive educational programs for ED/BD students. Considerations flow from the broader influences that shape curricular to alternative curricular options and content areas to more specific instructional methods and settings for service delivery. This progression highlights the intended and logical sequence

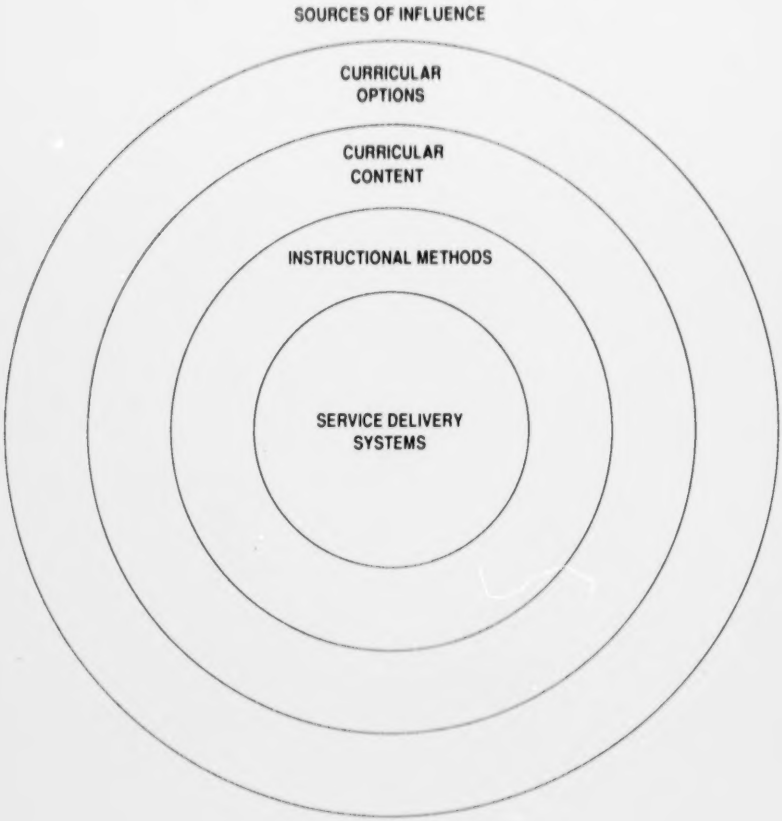

Figure 1. *A model for conceptualizing special education curriculum.*

of decisions in development of student IEP. The embedded circles were designed to promote visualization of the dynamic relationship among the various components of the model, in that changing needs of the student necessitate adjustments in all other program components to maintain appropriate matching of curricular, instructional, and service delivery options. Each of the model components is defined and discussed below and illustrated with related examples in Figure 2. The placement of examples on this figure schematically represents typical interrelationships among components. Again, this is not intended to suggest fixed or static configurations, but instead, dynamic interplay among components of the system.

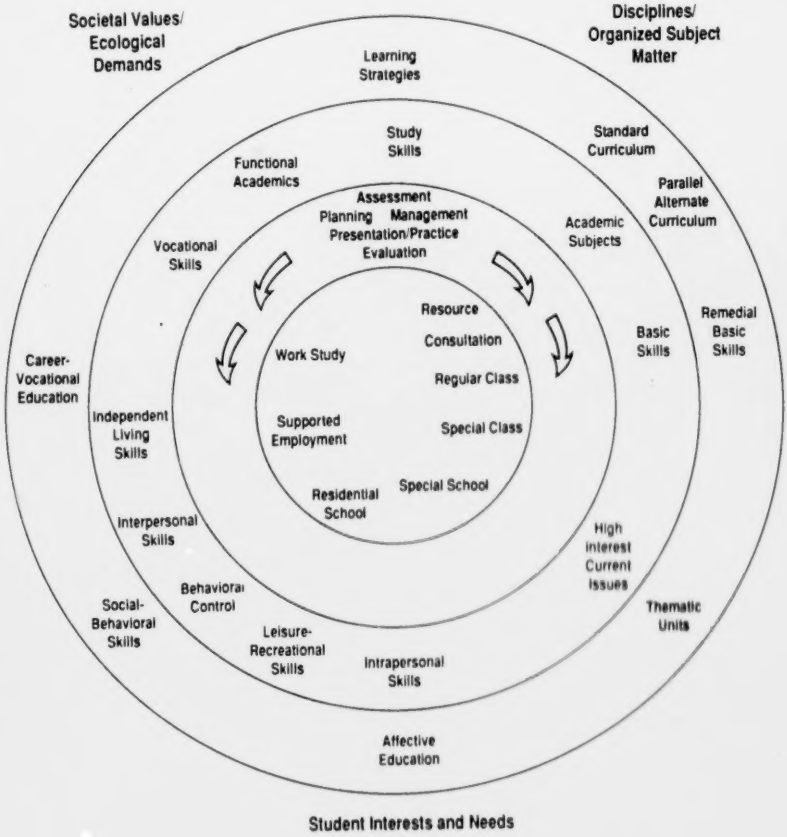

Figure 2. *Components of the conceptual model for ED/BD adolescents.*

Sources of Influence

The first component of the model provides a backdrop or frame of reference for the development and/or selection of curriculum. Sources of influence are the primary origins of teachable content, the knowledge bases from which curricular objectives can be derived. Variations of these influences acknowledged by Tyler (1949) and Johnson (1969) include (a) student needs and interests, (b) academic disciplines and organized subject matter, and (c) societal values and ecological demands. Although all three sources influence curriculum, their relative impact may vary considerably across educational programs as well as within educational programs over time.

By both legal definition and tradition, special education has emphasized student needs as the driving force for curriculum. Although this student-centeredness remains a hallmark of special education, when carried to the extreme, a singular focus on individualization of education programs can result in skewed, nonfunctional curriculum. In effect, this can be most restrictive, for it fails to prepare students to cope with academic or social/vocational expectations. Appropriate less restrictive curriculum is derived from careful consideration of the relative importance of academic subject matter and ecological demands for a given learner at a particular point in time.

Polloway et al. (1989) have compiled a list of variables for consideration in selecting curriculum from available sources. The list includes parent, regular class, and special education variables along with critical student variables such as age, grade placement probable years remaining in school, cognitive-intellectual level, academic achievement, motivation, social competence, and behavioral self-control. When developing IEPs for specific ED/BD adolescents, therefore, teams control educational priorities by considering the above factors and choosing to what extent individualized programs will address academic subject matter and/or ecological demands. The teacher also exerts control over the curriculum, for she/he has ultimate responsibility for translating IEP goals and objectives into an instructional program.

Curricular Options

From the interplay of the three primary sources of influence emanates a range of curricular options depicted in the outer band of the model (Figure 2). These options have also been referred to as "curricular approaches" (Vergason, 1983). Placement on this model is intended to suggest the strongest sources of influence that have shaped that curricular option for ED/BD adolescents. For example, the standard curriculum appears in close proximity to academic disciplines as a source of influence, because that curriculum is primarily driven by the structure of the disciplinary subject matter. On the other hand, career-vocational curriculum is placed midway between student needs/interests and societal values/ecological demands because these jointly influence the nature of that curriculum.

Other major options for ED/BD adolescents include parallel alternate curriculum, remedial basic skills, thematic units, affective education, social-behavioral skills, and learning strategies. Each of these has also been located

on the model to depict relative sources of influence.

Curricular Content

While the outer band of the model identifies the major curricular options, the second band presents a more detailed listing of curricular content, (i.e., intended learning outcomes). Target concepts and skills relevant for ED/BD adolescents have been clustered into 11 curricular content areas as follows: academic subjects basic skills, high interest current issues, intrapersonal skills, leisure-recreational skills, behavioral control skills, interpersonal skills, independent living skills, vocational skills, functional academics, and study skills.

These curricular content areas have been placed on the model (see Figure 2) to exemplify their typical relationships to defined sources of influence and curricular options. The fact that there is not one-to-one correspondence between major curricular options and content areas complicates communication and may contribute to the confusion in the field. Some curricular programs address multiple content areas, and conversely, some content areas are covered by different curricular programs. For example, a career-vocational program may include functional academics, independent living skills, leisure-recreational skills, intrapersonal and interpersonal skills, as well as vocational skills. On the other hand, a specific content areas such as interpersonal skills may be a component of several alternative curricular programs, including affective, social-behavioral, career-vocational, and learning strategies curricular. The proposed model may assist special educators in sorting out available options in order to target the critical content to be learned by a particular student.

Instructional Methods

Discussion of the model thus far has focused on sources of influence, curricular options, and curricular content—the outcomes or results of educational programming. The next band of the model deals with instructional methods—the means to achieve the desired outcomes including assessment, planning, presentation, practice, and management strategies. These methods or strategies bring the learner in contact with the defined curriculum.

Some of these general methods—for example, curriculum-based assessment, applied behavior analysis, and direct teaching—have wide applicability and may be used effectively to achieve a variety of intended learning outcomes. Even the more generic approaches, however, are not appropriate for all curricular content areas. Direct instruction, for instance, may not be a strategy of choice for developing certain intrapersonal skills as part of an affective education curriculum. Additionally, there are some highly specialized methods that are applicable only to certain content areas.

The major tasks for instructional programming are identified in the third band of Figure 2. For this particular band, placement on the model does not permit alignment with related curricular items in surrounding bands; instead, the ordering of categories in this band depicts the sequence of instructional decisions that should occur for all curricular options and content areas.

Service Delivery Systems

After major priorities have been identified, curricular options and content selected, and instructional methods defined, the appropriate setting for service delivery can be determined. Placement alternatives typically represented in the cascade or continuum of services (Deno, 1973; Reynolds, 1962) are listed in the center of Figure 2. The range of alternatives includes the regular class, regular class with consultative support, resource class, special class, special school residential school, work study, and supported employment delivery systems. The location of these service delivery systems on the model generally corresponds to the sources of influence, curricular options, and content typically addressed in that setting.

Illustrations may highlight the usefulness of the model and its visual depiction. The standard curriculum would be represented by a slice or segment of the model with organized subject matter at the rim as the driving influence, academic subjects as curricular content, a variety of instructional and evaluation methods, and the regular class with possible consultative or resource support as the likely service delivery modes. A career-vocational option would represent a large slice of the figure, since it is drown heavily from both student needs and ecological demands and incorporates a range of curricular content (functional academics, intra- and interpersonal skills, leisure-recreational skills, independent living skills, vocational skills, etc.) and may be addressed in a variety of settings (resource, special class, special school, residential school, work study, supported employment).

APPLICATIONS OF THE CURRICULAR MODEL

Two diverse examples of curricular options—learning strategies and thematic units—are presented to illustrate further the interplay of model components. In the accompanying figures are detailed specific curricular content, instructional methods, and service delivery systems appropriate to these curricular options.

Learning Strategies

The first example, the learning strategies curriculum illustrated in Figure 3, stresses learning rules and procedures for applying to academic content and social situations. Also emphasized is active student involvement to increase learner independence in performing strategic tasks (Deshler & Schumaker, 1986; Ellis & Lenz, 1987; Weinstein & Meyer, 1986). The target population for the learning strategies option is low-achieving students at risk for failure in school and society with at least average intelligence and potential for regular class functioning.

The primary *sources of influence* or origins of teachable content for academic learning strategies are the demands placed on the student in mainstream subjects typically conveyed through group instruction (e.g. notetaking and test-taking), hence placement of these strategies between organized subject matter and ecological demands. The more portable self-study strategies such as self-questioning and use of mnemonics relate to the more independent study skills needed to organize, integrate, and remember

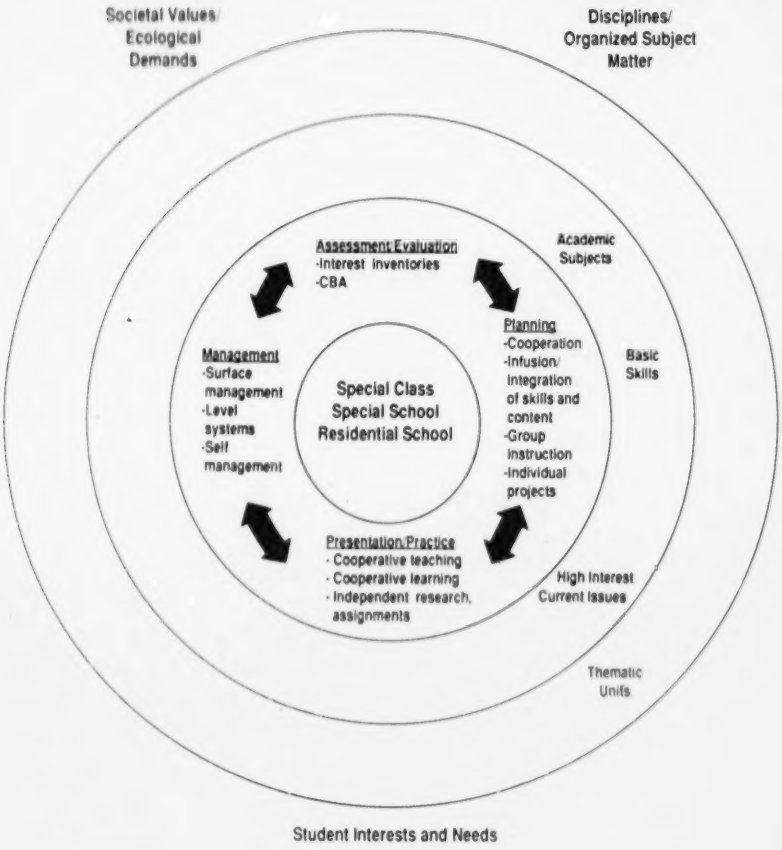

Figure 3. *Curricular Option: Learning Strategies.*

material in a discipline, thus the placement of these strategies on the model. Sources for social strategies such as conversation and problem solving are the existing demands/expectations of various social interactions in school and nonschool environments and the students' needs for skill/strategy development in these settings. These social strategies are, therefore, placed on the model between student needs and ecological demands.

As suggested by the various sources of influence, the *curricular content* in the learning strategies option varies with environmental demands, subject matter, and individual student characteristics/deficits. Curricular content for the learning strategies option includes specific strategies related to the

different sources of influence and are presented in the second band of Figure 3. If the student needs to develop greater independence in all areas, content covered would include the strategies needed to succeed in group instruction of regular class subjects (e.g., notetaking, test-taking, paragraph writing, and error monitoring), self-study strategies for understanding, remembering, and performing in these subject areas (e.g., comprehension, mnemonics, self-questioning), and social strategies (e.g., conversation, giving/accepting positive and negative feedback, following directions, negotiation, and problem solving). On the other hand, if academic strategies are an area of strength for a particular student, the focus for content to be taught/learned would be more socially-oriented strategies.

Examples of programs that offer strategy training in a range of areas include the Strategies Intervention Model from the University of Kansas Institute for Research in Learning Disabilities that targets learning, social, motivational, and executive strategies (Ellis & Lenz, 1987); the School Survival Skills Project that addresses behavioral control, teacher-pleasing behaviors, and study skills (Silverman, Zigmond & Sansone, 1981); and the Junior High Transitional Curriculum (Robinson, Braxdale, & Colson, 1985) that covers self-management and study skills, social/adaptive behavior, and academic strategies.

Instructional methods of particular importance to the learning strategies curriculum include ecological assessments involving observations, checklists, interviews, and self-reports, such as those suggested by Weiner (1986), Ysseldyke and Christenson (1987), and Zigmond, Vallecorsa, and Silverman (1983) to determine academic/social environmental demands. More individualized assessment in the form of curriculum-based probes for particular strategies helps the teacher systematically determine required content areas from among the possible areas for instruction.

Planning for implementation of learning strategy instruction involves the preparation necessary to teach content or skills in any curriculum (e.g., determining specific objectives; securing necessary materials; planning presentation, practice, evaluation and follow-up activities). Specific instructional methods that may not be as essential to other curricular options but are integral to effective strategy instruction involve student goal-setting and commitment to learn as well as cooperation among special and regular class teachers. This cooperation is essential to delineate specific responsibilities for implementing strategy instruction, to ensure a match between instruction and environmental demands, and to program for generalization and maintenance of the strategies to/in the desired environments.

Presentation and practice components of instruction again include teaching practices common to other curricular options (e.g., the direct instruction behaviors of modeling/demonstration, appropriate pacing with a high rate of successful student responding, and guided practice with feedback). Additional instructional methods more unique to the learning strategies curricular option and most explicitly illustrated in the KU-IRLD Strategies Intervention Model are: (a) direct explanation focused on cognitive aspects of the decision making involved in applying skills to content, (b) rapid-fire verbal rehearsal of the strategy steps, and (c) structured phases for

generalization of strategies.

Management methods associated with the learning strategies option include surface management techniques (Long & Newman, 1980) and self-instruction/monitoring. These procedures are assistive or supportive to group instruction in learning strategies as opposed to being the primary focus of instruction, as they might be in a curriculum emphasizing social/behavioral content.

To complete the illustration of the learning strategies curricular option, the *delivery systems* most conducive to mastery and generalization of the targeted strategies should be identified. Most commonly, strategy instruction and practice in subject matter from the standard curriculum is provided first in the resource room and then in the regular class with follow-up from the resource teacher. Learning/social strategies may also be taught in self-contained classrooms using texts and materials from the regular curriculum, but opportunities to practice generalization in mainstream settings would be limited.

The relative emphasis given strategies may change at different points in the student's educational career depending upon his/her needs and predominant influences. Advantages of the learning strategies curriculum for ED/BD students include its focus on equipping students with strategies to succeed in mainstream subjects/environments and deliberate programming for generalization and student independence. This option, however, does not address directly tutorial, basic skills, behavioral, or career/vocational needs of students—areas of major concern for most ED/BD adolescents. Instruction in content from other curricular options would be needed to supplement strategy instruction for most students. Other concerns with this option include the limited efficacy data for the approach with ED/BD adolescents and the need for training, administrative support, teaming, and flexible scheduling for full implementation of the strategies intervention model. These factors may not be present in every educational setting serving ED/BD students.

Thematic Units

Another curricular option in use with ED/BD adolescents is the thematic unit approach (see Figure 4). Although generally not identified as a discrete model in curricular categorizations (e.g., Alley & Deshler, 1979; Polloway et al., 1989; Zigmond et al.,1986), it exists in practice as an entity distinct from either standard or basic skill curricular options. Thematic units involve the organization of content around a useful, meaningful, or interesting theme or topic and infusion/integration of skills that are in keeping with this theme (Meyen, 1981). As such, the driving force or *source of influence* for this option is primarily student interests and needs rather than environmental demands or organized subject matter (although effective units ideally address knowledge/skills related to both sources). *Curricular content* in the unit approach is highly variable. Topics are selected to reflect student interest and often are related to current issues or themes of particular importance to the class in its current configuration. Frequently, topics lend themselves to interdisciplinary involvement and use of community resources. Examples of thematic units include Humor, Oceans, Women's Studies, Space Exploration,

Careers, Olympics, and Elections.

In special education the target population for thematic units is typically academically delayed, less motivated students who often have experienced many transitions in their learning. The unit represents an attempt to capture interest and maintain attendance/motivation while addressing basic skills or other relevant content as an important, but secondary consideration.

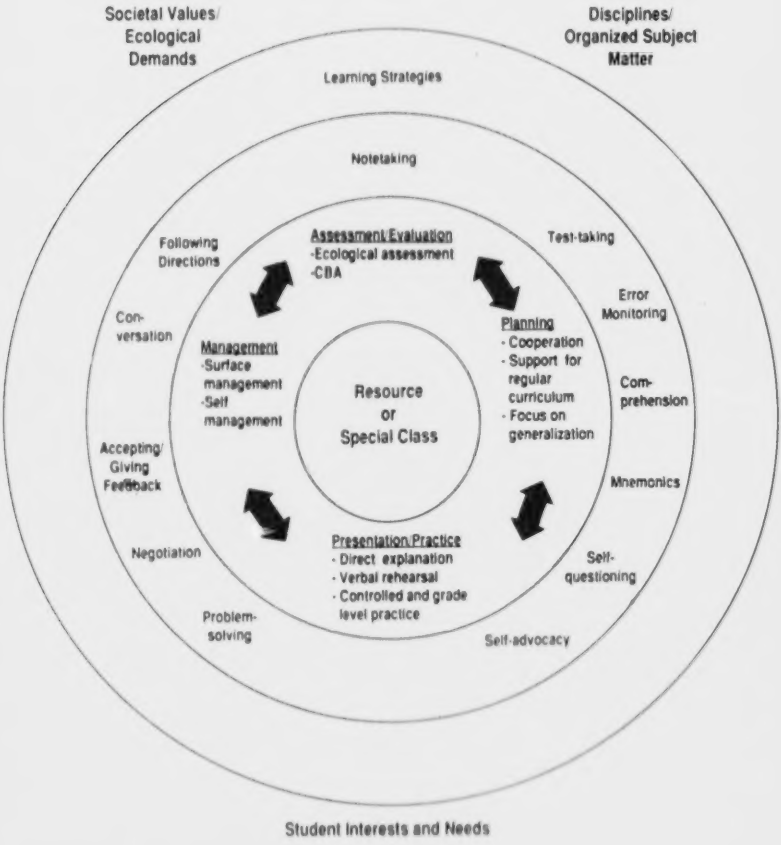

Figure 4. *Curricular Option: Thematic Units.*

Instructional methods associated with the unit option include use of interest inventories and curriculum-based assessments to ascertain student interest in possible topics/themes and their skill levels in relation to the selected material to be covered in the unit. Cooperative planning and teaching with content area experts and community representatives are highly desirable as vehicles

to help the teacher determine relevant concepts, experiences, and resources and to integrate skills and content from other curricular options into the unit.

Group instruction followed by individualized research projects or assignments to accommodate the diverse learning characteristics and levels of the students involved is typical practice for the unit approach. The topic or theme could also lend itself to cooperative learning experiences (e.g., Johnson and Johnson, 1986; Slavin, 1984) provided that these are structured in ways that promote success for students. Some instruction in cooperative behavior may be a necessary prerequisite to successful cooperative learning activities with ED/BD students.

Management strategies implemented with the thematic unit could be targeted toward developing these cooperative skills or enhancing self-management. Existing level or point systems and surface management techniques such as interest boosting, hurdle help, or redirection (Long & Newman, 1980) would be supportive to group instruction and completion of individual projects.

Service delivery systems in which the thematic unit is generally implemented include special classes, special schools or facilities, and residential settings. Although the unit approach can be used in other settings, the needs of students most often served in more integrated settings typically make other types of curricular of greater priority.

The thematic unit approach offers a great deal of flexibility to teach to student interest and strengths, and thus, high potential for maintaining motivation and participation. Use of local experts and community resources/centers can keep cost within reasonable limits while providing a variety of learning experiences. The unit also provides a medium for heterogeneous group instruction with individualized assignments in settings serving transient populations with diverse learning characteristics.

These potential advantages of the thematic unit curricular option, however, are often overshadowed by its potential disadvantages. Effective units require teacher sophistication in curricular design and curriculum-based assessment since, by their very nature, units lack prescribed sequence, integration, and direct linkages to adopted curricular or IEP goals and objectives. It is up to the teacher to delineate these connections in planning and implementing units with students and to devise adequate monitoring systems that demonstrate both student learning and teacher accountability. Unless these tasks can be accomplished at an acceptable level, the resulting program offered students may be piecemeal, unbalanced, and more restrictive that other curricular options.

CONCLUSION

A model for conceptualizing special education curricular has been proposed and illustrated with two curricular options used for ED/BD adolescents. The model represents an attempt to:

1. Provide a context and frame of reference for meeting student needs which orients team decision making and IEP development toward the most

relevant sources of influence;

2. Improve communication among educators, administrators, related service personnel, and parents through provision of a common language that clarifies relationships among sources of influence, curricular content, instructional methods, and service delivery systems;
3. Acknowledge a comprehensive range of curricular options for ED/BD adolescents to complement social-behavioral programming; and
4. Accommodate changing priorities for individual student programs and promote systematic movement toward less restrictive curriculum by analyzing the factors that limit or expand student options for success in more integrated settings.

Public Law 94-142 mandated free, appropriate education in the least restrictive environment. Attempts to gauge appropriateness and restrictiveness must take into account the extent to which educational programs limit, maintain, or expand student options. Clearly, placement alone is not the issue. Unless students are provided with curricular that equip them to function in both school and community, they will not succeed in more integrated settings. This model for conceptualizing special education curriculum has been proposed to stimulate examination of interrelated curricular, instructional, and service delivery options toward operationalizing a concept of least restrictive curriculum.

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Virginia K. Laycok, Associate Dean and Associate Professor, School of Education, College of William and Mary, Williamsburg, VA 23185.

Lori A. Korinek, School of Education, College of William and Mary, Williamsburg, VA 23185.

An Investigation of Social Networks of Behaviorally Disordered and Normal Adolescents: Implications for Prevention and Intervention

Robert A. Gable[1], Gail E. Iwans, Stephen W. Tonelson, William H. Evans, and Susan S. Evans

ABSTRACT

The ecological perspective is gaining in popularity as one way of viewing behavioral disorders. Fundamental to the ecological viewpoint is that behavior problems reflect a lack of congruence between the individual and the environment. The concept of social networks is one aspect of that person-environment relationship and the focus of this investigation. Although research involving adolescents is limited, the overall significance of social networks is undisputed. Discussion focuses on analyzing and comparing the social networks of normal and behaviorally disordered adolescents. Results indicate that certain aspects of these two groups' social networks differ significantly. Several tentative statements on prevention and intervention that can be formulated according to this line of investigation are offered.

Historically, concern for students' behavioral disorders has rested mainly with the individual and on specific behaviors which can be identified and controlled (Young, Gable & Hendrickson, 1988). Based on conceptual models ranging from psychodynamic to behavioral, intervention strategies also have tended to focus on the individual. This singular approach has proven most successful when treatment is provided in a highly structured setting; however, return to the natural environment has usually resulted in behavioral regression. From an ecological perspective, the natural settings in which persons interact play a vital role and are significant determinants of behavior (Lewis, 1982). In adhering to this view, person-environmental relationships are recognized as the cornerstone upon which all behavior rests (e.g., Evans, 1986; Hobbs, 1982).

[1]The complete student and adult social network interview forms and instructions are available from the first author.

Consonant with an ecological perspective is the fact that behavior problems may be viewed as residing within a so-called "ecosystem". It is assumed that a youngster identified as behaviorally disordered is involved in discordant transactions with family members, teachers, or significant others in his or her life (Lewis, 1982). Since the individual and environment form an inseparable unit consisting of an interrelated set of variables, an ecological approach holds considerable promise for identifying factors connected with adolescents' behavioral disorders. Impetus for incorporating an ecological approach arose from calls to expand the behavioral perspective to include an ecological view of behaviorally disordered children and youth (e.g., Warren, 1977). The definition of related services in Part B of Public Law 94-142 also suggests that ecological considerations should be part of an education program for seriously emotionally disturbed children and adolescents (Lewis, 1982). It follows that an ecological approach reflects concern regarding peer group dynamics as well as the family and home environment (e.g., Heron & Heward, 1982). A related aspect of an adolescent's ecology that is gaining attention pertains to social networks.

The subject of social networks is growing in popularity as professionals are becoming increasingly interested in the potential impact of various ecological factors (e.g., Jason, Douglas, Nair, & Billingham, 1984). A social network is generally defined as a support system that offers guidance and direction, and that serves as a sanctuary from stressful encounters (Nair & Jason, 1985). Social support is viewed as the existence or availability of people on whom one can rely, and who communicate a sense of caring (Sarason, Levine, Basham, & Sarason, 1983). Some theorists have argued that social networks may serve as a buffer that shields an individual from the negative physical and mental consequences of stress (Douglas & Jason, 1984). Social support also is believed to provide the resources necessary for coping with difficult life events. It is assumed that people with closer relationships have more psychological, social, financial, and informational resources which help them to solve problems and bear emotional upsets (Hansell, 1895). Furthermore, the ability to establish an appropriate peer social network to serve as a source of emotional support, information, orientation, and guidance is an especially important aspect of social competence (Cauce, 1986). In short, there is widespread support for the opinion that social networks play a significant role in overall adjustment.

Studies that pertain strictly to adolescents' social networks are virtually nonexistent. Even so, it would appear that an adequate social network is of vital concern to adolescent development. Blythe, Hill, and Thiel (1982) asserted that adolescents may define significant or important relationships that together comprise a social network according to a number of dimensions. The importance of the nuclear family in the construct of the social network is widely accepted. The frequency of contact seems to be important in relationships with nonrelated adults and is thought to be the most important dimension of adolescents' relationships with peers. In comparing the respective parent-peer influence as adolescence progresses, there appears to be an increasing orientation to peers. The greater amount of influence exerted by peers may be more a function of the changing roles than a quantitative change in the number of peers who play a role in the adolescent's life (Blythe et al., 1982).

Regardless, available evidence suggests that these networks have a significant influence on various aspects of physical as well as psychological well-being (Jason et al., 1984). It follows that ecological assessment that includes examination of the social networks of adolescents would contribute to a more complete understanding of factors influencing behavior in natural settings.

The present study is based not only on mounting interest in the role that social networks play in mediating the effects of stressful life events (Nair & Jason, 1985) but also recognition that social networks can be used in predicting adjustment (Hirsch, 1981). That is, differentiating the types of support available to adolescents may serve as one predictor of adaptive versus maladjustive behavior. Another assumption underlying this investigation is that the majority of adolescents referred to residential or acute care settings have ecosystems that are dysfunctional in one way or another. Placement in a more restrictive setting is usually predicated on behavior judged to be severe enough to diminish the capacity to function satisfactorily in the mainstream of society (Gable & Strain, 1979). Then, analysis of the structure of adolescent networks may yield new information about the efficacy of social support, and eventually suggest new strategies for ecological intervention (Hansell, 1985).

METHOD

Subjects and Settings

The students who served as subjects in the present study consisted of 60 9th-12th graders. Of these subjects, 30 were enrolled in a large metropolitan area public high school of approximately 1,850 students. These participants were selected on the basis of enrollment in a psychology class. In addition, 30 other students from acute care psychiatric hospitals, where the average length of stay is 30 to 60 days, also served as subjects. Problems that precipitated placement of these students included verbal and physical aggression, substance abuse, discordant family interactions, and severe withdrawal. Classification of the students as behaviorally disordered was in accordance with state and federal guidelines. From these two populations, random samples stratified according to grade and sex for each group were used to select 30 students, 15 females and 15 males, ranging in age from 14 to 18 years. Reports suggested that all subjects possessed at least average intelligence.

Instrument

The Arizona Social Support Interview Schedule (ASSIS) developed by Barrera (1981) was adapted to assess social networks of normal and behaviorally disordered adolescents (see Appendix). This instrument addresses the areas of private/internal feelings, material support, advice, positive feedback, physical assistance, social participation, and negative interactions. The total number of persons listed in each of these areas constitutes the size of the social network. Determining the size of social networks in this manner has been demonstrated to be reliable (r = .88; and 74% of the people listed during the pretest were listed at the posttest; Jason et al., 1984).

In the current study, satisfaction with and need for network members were assessed using a 3-point Likert scale. The subjects were asked a series of

questions regarding the amount of support received from social network members as to whether s/he would have liked a lot more or a little more or whether it was about right. An average network level of satisfaction and of need, then, were determined according to individual responses. Respondents were asked to label each network member's relationship to them—or family members, specifying the exact relationship; for professional people, the exact relationship; for professional people, the exact profession; and for peers, friends. Responses were expressed in terms of percentage in the respondent's network for each category.

Respondents also rated network members on three demographic variables: age, sex, and ethnicity. These results were used to compare likenesses and differences between network members and respondents. Scores were coded according to the number of like characteristics and a homogeneity score for each network was computed according to mean number of similar/dissimilar qualities (i.e., age, sex, and race).

Procedures

Prior to data collection, teachers or mental health workers were instructed in the administration of the Arizona Social Support Interview Schedule (ASSIS). Written instructions were given to each interviewer for repeated review. The ASSIS was conducted with subjects individually during the last quarter of the school year. Subject were taken from either their first or second class periods to complete the ASSIS. Administration took approximately 25 minutes. Subjects were given response sheets which had abbreviated versions of the questions on them. The interviewers read the questions aloud and probed the subject (e.g., by asking them if there was anyone else for each category) to ensure complete responses. Responses to items were written on the subjects' sheets, independently hand scored by an associate, and rechecked by the authors.

RESULTS

Reliability

Interrater reliability checks were conducted independently on the scoring and recording of data from all interview forms. Rechecks resulted in 100% agreement between scorers.

Social Networks of Normal Adolescents

Normal adolescents reported an average network of 6.80 people. The mean number of people listed in specific areas were as follows: siblings 0.23, nonrelated peers 4.33, parents 1.10, and nonrelated adults 0.77. The mean number of people listed under each area of support was as follows: private feelings 3.20, material aid 3.30, advice 2.67, positive feedback 3.50, physical assistance 3.20, social interaction 4.43, and for negative interaction, 2.63 individuals.

Social Networks of Behaviorally Disordered Adolescents

The behaviorally disordered adolescents had an average network size of 11.00 people. The mean number listed for siblings was 0.53, for nonrelated peers

5.60, for parents 1.40, and for nonrelated adults 2.67. Under the specific areas of support the means were as follows: private feelings 3.77, material aid 3.73, advice 4.17, positive feedback 4.63, physical assistance 3.97, social interaction 4.97, and negative interaction was 3.43.

Comparison of Social Networks

The results of the present study indicate that behaviorally disordered adolescents differ significantly ($p \leq .05$) from their normal peers concerning both the size and the complexity of their social networks. Behaviorally disordered adolescents included significantly more members of their extended family as members of their social networks. Also, the behaviorally disordered adolescents reported a greater number of nonrelated adults as social network members as well as significantly more total adults members (see Table 1). Last, the behaviorally disordered adolescents reported significantly greater numbers of individuals in their social networks. However, none of these differences, except size, were significant when ASSIS categories were differentiated (see Table 2).

TABLE 1

Comparison of Social Network Size

	Behaviorally Disordered Adolescents X	Normal Adolescents X
Peers	.53	.23
Siblings		
Extended family*	.16	.00
Nonrelated	5.60	4.33
Total	6.10	4.57
Adults		
Parents	1.40	1.10
Adults Siblings	.10	.10
Extended Family*	.53	.27
Non-related*	2.67	.77
Total	4.70	2.30
Overall		
Nuclear family	1.87	1.43
Extended family*	.73	.33
Total family	2.60	1.77
Nonrelated	7.37	5.03
Total overall*	11.00	6.80

* Significance $p \leq .05$

TABLE 2

Arizona Social Support Interview Schedule — Means by Category

	Behavior Disordered Adolescents X	Normal Adolescents X
Private feelings	3.77	3.20
Material aid	3.73	3.30
Advice	4.17	2.67
Positive feedback	4.63	3.50
Physical assistance	3.97	3.20
Social interaction	4.97	4.43
Negative interaction	3.43	2.63
Network size*	11.00	6.80

* Significance $p \leq .05$

When satisfaction and need data on the ASSIS were analyzed, the results indicated significant differences between the behaviorally disordered adolescents and their normal peermates in the areas of private/internal feelings and advice. For private feelings the respondents differed with regard to satisfaction; and in the advice area, adolescents differed in respect to need. Figures indicated that behaviorally disordered adolescents were less satisfied with their private feelings and that they perceived a greater need for advice (see Table 3). Finally, the ASSIS addressed the homogeneity of the respondents' social networks. As before, the 6 categories were scored separately with the two adolescent groups reporting similar results (see Table 4).

TABLE 3

Comparison of Social Network Perceived Satisfaction (S) and Need (N)

		Behavior Disordered Adolescents X	Normal Adolescents X
Private feelings	S*	1.90	2.50
	N	2.50	2.27
Material aid	S	2.70	2.70
	N	2.03	1.87
Advice	S*	2.43	2.67
	N	2.57	2.07
Positive feedback	S	2.07	2.30
	N	2.37	2.10
Physical assistance	S	2.27	2.43
	N	2.13	2.07
Social interaction	S	1.43	1.60
	N	2.63	2.57

* Significance $p \leq .05$

TABLE 4

Homogeneity of Social Networks

	Behavior Disordered Adolescents X	Normal Adolescents X
Private feelings	2.21	2.30
Material aid	1.97	2.48
Advice	2.05	2.15
Positive feedback	2.18	2.24
Physical assistance	2.08	2.16
Social interaction	2.46	2.52
Negative feelings	1.91	1.85

* Significance $p \leq .05$

DISCUSSION

Although there has been scant research on social networks of adolescents, the resurgence of interest in an ecological approach has heightened awareness of the potential importance of this line of investigation (Evans, Evans & Schmid, in press). Available studies indicate that various factors associated with social networks may exert powerful influence on overall life adjustment (Barone, Leone & Trickett, 1988). It has been asserted that identification of variables that comprise social networks and are precursors to problem behaviors may contribute to our ability to prevent or intervene successfully with some behavior problems (e.g., Nair & Jason, 1985). The value of this knowledge hinges on the proposition that we can single out important and controllable variables and successfully conduct intervention accordingly (Gable, Henrickson, Warren, Evans, & Evans, in press).

The present study represents a significant expansion of previous efforts. In contrast to studies that have focused on children, our knowledge of adolescents' social networks is extremely limited. In this study, it was found that social networks appear to vary between behaviorally disordered and normal adolescents. For example, the behaviorally disordered adolescents reported consistently larger networks, particularly in the areas of nonrelated adults and nonrelated peers. The number of nonrelated adults listed by behaviorally disordered adolescents may be influenced, at least in part, by time limited exposure to therapists, mental health workers, and other adults associated with a more restrictive setting. There is no readily available explanation for the larger number of peers although the accuracy of the reciprocal nature of these relationships remains to be documented. Still, given the burgeoning body of evidence to support the powerful influence peers exert on one another's behavior, this finding may be potentially significant. Peer-mediated programs have been shown to influence multiple responses of children and adolescents in a variety of settings (e.g., Young, Smith, West, & Morgan, 1987). Results of the present study add further credence to the

importance of peer-mediated intervention with behaviorally disordered adolescents. Although speculative, findings that some behaviorally disordered adolescents express dissatisfaction regarding interval events (i.e., feelings) and acknowledge the need for advice raises some questions about enlarging the role of peers in the treatment effort and incorporating both cognitive and behavioral support strategies.

While this study represents a new area of investigation, there are several limitations. First, although adolescents were from two distinct settings (a public high school and a psychiatric hospital), their number was limited. The data reported may vary as a function of variability in behavior of the subjects. Second, the differences found between the groups of adolescents' social network cannot be attributed solely to their current physical placement. Third, any research that relies on questionnaire data is subject to cautious interpretation; replication that included concurrent observation and/or administration of a sociometric scale would address reliability and validity questions. Finally, although there would appear to be some relationship between an adolescent's social network emotional well-being, and conduct, the complex nature of human behavior in relationship to its environment must be considered when inferring meaning from such a relationship.

While research on social networks and their function in adjustive development is limited, it is clear that significant people play important roles in the lives of adolescents. The availability of support increases resilience in the face of stress. There are significant relationships between stress and social support on the one hand and individual maladjustment on the other. Finally, an early supportive family environment is correlated with positive adult adjustment and absence of psychiatric disorders (Sarason et al., 1983). Other social network factors that may be predictive of future adjustment include acculturation, cognitive, problem solving, and social skills, as well as the heterogeneity of the network (i.e., members vary according to age, sex, and race; Nair & Jason, 1985). Findings of the present study support the need for further research to obtain a more complete understanding of the impact of social networks on adolescent behavior and adjustment (Evans et al., in press)

Clearly, far more empirical evidence is needed to provide a stronger basis for theoretical and applied advancement in this area (Sarason et. al., 19834). Yet knowledge of factors that predictably distinguish the social networks of normal versus behaviorally disordered adolescents should provide guidance for prevention and intervention programs (e.g., home-school programs, peer-mediated treatment, cognitive-behavioral training). While examination of ecological factors—particularly social networks—is only in its formative stage, it has a common sense and logical comprehensiveness about it that is appealing (Hewett, 1987), and enough evidence to support its further investigation.

APPENDIX

Arizona Social Support Interview Schedule (ASSIS)

In the next few minutes, I would like to get an idea of the people who are important to you in a number of different ways. I will be reading descriptions of ways that people are often important to us. After I read each description, I will be asking you to give me the first names, initials, or nicknames of the people who fit the description. These people might be friends, family member, teachers, minister, doctors, or other people you might know.

I will only want you to give me the names of people you actually talked to during the last month. It's possible, then, that you won't get a chance to name some important people if, for one reason or another, you haven't had any contact with them in the last month.

If you have any questions about the descriptions after I read each one, please ask me to try and make it clearer.

A. Private feelings

1. If you wanted to talk to someone about things that are very personal and private to whom would you talk? Give me the first names, initials, or nicknames of the people to whom you talk about things that are very personal and private.

   Probe: Is there anyone else that you can think of?

2. During the last month, which of these people did you actually talk to about things that were personal and private?

   Probe: Ask specifically about people who were listed in response to #1 but not listed in response to #2.

3. During the last month, would you have like:
   1. a lot more opportunities to talk to people about your personal and private feelings?
   2. a few more opportunities?
   3. or was this about right?

   Circle 1, 2, or 3.

4. During the past month, how much do you think you needed people to talk to about things that were very personal and private?
   1. not at all
   2. a little bit
   3. quite a bit

   Circle 1, 2, or 3.

B. Material Aid

1. Who are the people you know that will lend or give you $25 or more if you needed it, or would lend or give you something (a physical object) that was valuable? You can name some of the same people that you named before it they fit this description too, or you can name some

other people.

Probe: Is there anyone else that you can think of?

2. During the past month, which of these people actually loaned or gave you some money over $25 or gave or loaned you some valuable object that you needed?

   Probe: Ask about people named in response to #1 that were not named in response to #2.

3. During the past month, would you have liked people to have loaned you or to have given you:
   1. a lot more
   2. a little more
   3. or was it about right?

   Circle 1, 2, or 3.

C. Advice (Cognitive Guidance)

1. Who would you go to if a situation came up when you needed some advice? Remember, you can name some of the same people that you mentioned before, or you can name some new people.

   Probe: Anyone else?

2. During the past month, which of these people actually gave you some important advice?

   Probe: Inquire about people who were listed for #1 but not for #2.

3. During the past month, would you have liked
   1. a lot more advice
   2. a little more advice
   3. or was it about right?

   Circle 1, 2, or 3.

4. During the past month, how much do you think you needed to get advice?
   1. not at all
   2. a little bit
   3. quite a bit

   Circle 1, 2, or 3.

D. Positive Feedback

1. Who are the people that you could expect to let you know when they like your ideas or the things what you do? These might be people you mentioned before or new people.

   Probe: Anyone else?

2. During the past month, which of these people actually let you know that they liked your ideas or liked the things that you did?

   Probe: Ask about individuals who were listed for #1 but not for #2.

3. During the past month, would you have liked people to tell you that they liked your ideas or things that you did?
   1. a lot more often
   2. a little more
   3. or was it about right

   Circle 1, 2, or 3.

4. During the past month, how much do you think you needed to have people let you know when they liked your ideas or things that you did?
   1. not at all
   2. a little bit
   3. quite a bit

   Circle 1, 2, or 3.

E. Physical Assistance

1. Who are the people that you could call on to give up some of their time and energy to help you take care of something that you needed to do—things like driving you some place you needed to go, helping you do some work around the house, going to the store for you, and things like that? Remember, you might have listed people before or they could be new names.
   Probe: Anyone else you can think of?

2. During the past month, which of these people actually pitched in to help you do things with which you needed some help?
   Probe: Ask about people who were named in response to #1 but not in response to #2.

3. During the past month, would you have liked
   1. a lot more help with things that you needed to do
   2. a little more help
   3. or was this about right?

   Circle 1, 2, or 3.

4. During the past month, how much do you feel you needed people who would pitch in to help you do things?
   1. not at all
   2. a little bit
   3. quite a bit

   Circle 1, 2, or 3.

F. Social Participation

1. Who are the people that you get together with to have fun or to relax? These could be new names or ones you listed before.
   Probe: Anyone else?

2. During the past month, which of these people did you actually get together with to have fun or to relax?
   Probe: Ask about people who were named in response to #1 but not

in response to #2.

3. During the past month, would you have like
   1. a lot more opportunities to get together with people for fun and relaxation
   2. a few more
   3. or was it about right?

   Circle 1, 2, or 3.

4. How much do you think that you needed to get together with other people for fun and relaxation during the past month?
   1. not at all
   2. a little bit
   3. quite a bit

G. Negative Interactions

1. Who are the people that you can expect to have some unpleasant disagreements with or people that you can expect to make you angry and upset? These could be new names or names you have listed before.
   Probe: Anyone else?

2. During the past month, which of these people have you actually had some unpleasant disagreements with or have actually made you angry and upset?
   Probe: Ask about people listed for #1, but not for #2.

H. Personal Characteristics of Network Members

Now I would like to get some information about the people you have just listed. For each person on the list, could you tell me:

1. What is this person's relationship to you? For family members, specify the exact relationship (mother, father, brother, sister, grandmother, etc.). For professional people, also specify the exact profession (teacher, minister, doctor, counselor, etc.).

2. How old is this person?

3. What is this person's sex?

4. What is this person's ethnicity?
   1. Black
   2. Caucasian
   3. Chicano, Latino, Mexican-American
   4. Native American
   5. Asian-American
   6. Other (specify)

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Robert A. Gable, Associate Professor, Department of Child Study and Special Education, Darden College of Education, Old Dominion University, Norfolk, Virginia 23529-0136.

Gail E. Iwans, Department of Child Study and Special Education, Darden College of Education, Old Dominion University, Norfolk, Virginia 23529-0136.

William H. Evans, Associate Professor, Department of Special Education, University of West Florida, Pensacula, Florida 32514.

Susan S. Evans, Assistant Professor, Department of Special Education, University of West Florida, Pensacula, Florida 32514.

The Personal-Communication Model for Planned Social Development in the Classroom

James R. Sanders

ABSTRACT

The Personal-Communication Model for planned development of social skills in the classroom is a curriculum planning model which can be used by educators and related services professionals to organize currently available social skills curricula into a developmentally defensible curriculum accounting for instructional concerns across grades K-12. The model interprets instructional outcomes from a task point of view includes the five social tasks—self-identification, self-expression, awareness of others, communication, assertiveness—commonly appearing in instructional curricula, assumes that the tasks must be accomplished anew at each developmental level, and arranges these tasks, along with associated skill sets, within a developmental hierarchy.

An important instructional task for mainstream teachers and special education teachers is assisting students in social development. Recent publications from Michelson, Sungai, Wood, an Kazdin (1983), and Cartledge and Milburn (1986) support the idea that planned social development in the schools can be pursued through organized instruction in social skills.

The social skills instruction field is a complex one characterized by differing theories and intervention strategies. In particular, available social skills curricula represent as many opinions and hybrid skills arrays as there are publishers. As Morse, Ardizzone, MacDonald, and Pasick (1980) stated in the opening preface of their publication Affective Education for Special Children and Youth:

> It is no wonder the field has been called chaotic and unorganized, where everything is included and where... opportunistic publishers have created gadgets or made haphazard lists of "activities" for teachers to try 10 minutes each day. (p. v.)

The disorganization in the social skills field makes it difficult to sustain planned social development through the grades. Mainstream teachers, special education teachers, and related services professionals need a model which provides a coherent curriculum planning structure enabling them to organize the social skills instructional materials currently available and accommodate social development

concerns across the grades. By taking into account current definitions of social competence, theoretical positions on planned social development outcome, and instructional interests commonly occurring across social skills curricula, one may develop such a curriculum model, referred to in the main body of this paper as the Personal-Communication Model, for planned social development in the classroom.

BACKGROUND

Historically, one of the problems hindering development of a comprehensive curriculum planning model is that definitions of social competence have provided tittle guidance to educators. As Dodge, Pettit, McClaskey, and Brown (1986) succinctly state, "Social competence has been defined in many ways that reflect the varying perspectives of social theoreticians" (p. 1). Goldfield and D'Zurilla (1969) take a sociological perspective and describe social competency as the relationship between organism and environment; White (1959) describes social competency from a cognitive perspective, that is, social judgment; Putallaz and Gottman (1983) use the medical model to defined social competence and see it as the opposite of mental illness.

Recently, authors publishing in the social skills field have taken a more pragmatic view and define social competence from the presence of certain overt behavior which can be taught. Trower (1982) takes this behavioral perspective and describes social competence as observable behaviors having utility in social relations. Michelson, Sungai, Wood, and Kazdin (1983) and Cartledge and Milburn (1986) echo this idea and treat social competency as a set of learned behaviors intended to support interpersonal interaction.

The generally accepted approach to defining the origin of these overt behaviors is that evolving social competence occurs out of respect to interaction between the basic functional mechanism—perception and cognition (Holling & Trower, 1986; Dodge et al., 1986). Interaction between the basic functional systems can be interpreted from an information processing point of view (Welford, 1979). However, the interpretation of the behavioral outcome varies across theoretical writers. Miller (1976) has grouped these writers and their individual interests into four major models: developmental, self-concept, sensitivity and group orientation, and consciousness raising.

Miller describes the developmental model as comprising the work of such well known authors as Piage, Erikson, Kohlberg, and Mazlow. Taken together, these authors describe the outcome of the interaction between the functional systems from a personality and "stages" viewpoint. The self-concept model contributed to by Glasser, Rogers, and Simon stresses identity formation, and self-regulation as the outcome. The sensitivity and group orientation model, so popular in this country in the late 1960s and 1970s, includes the well-known work of Carkhuff, Harris, and Berne. These authors describe the interaction between perception and cognition from a social problem-solving perspective. Authors associated with the fourth model which Miller outlines, the consciousness raising model, include Ornstein, Gordon, and Castillo who explore the idea of personal effectiveness. In various ways they describe the interaction between the two functional systems

TABLE 1

Task and skill emphases of social skills curricula

Author and Title	Age/ Grade	Social Task	Skill Set
Bash & Camp (1985a, b, c), Think aloud	grades 1-6	awareness of others	social problem solving
Davis (1977), My friends and me	preschool	self-identification awareness of others	social, emotional, physical, and student identity friendship
Goldstein & Glick (1987), Agression replacement training	grades 8-12	communication assertiveness	reading social schema, conversation, negotiation, assertive statements
Hazel, Schumaker, Sherman, & Sheldon-Wildgeon (1981), Asset	grades 8-12	awareness of others communication	reinforcing behavior, classroom communication, conversation
Jackson, Jackson, & Monroe (1983), Getting along with others	grades 1-12	assertiveness awareness of others communication assertiveness	negotiation, reinforcing behavior, problem solving, classroom communication, conversation, assertive messages
McGinnis, Goldstein, Sprafkin, & Gershaw (1984), Skillstreaming the elementary-aged child	grades 1-6	self-identification self-expression awareness of others communication assertiveness	student behaviors, managing feelings, group relations, conversation, negotiation
Schumaker, Hazel, & Pederson (1988), Social skills for daily living	grades 5-12	awareness of others communication assertiveness	friendship, group relations, reinforcing behavior, problem solving, classroom communication, reading varying social schema, conversation, negotiation
Walker, et. al. (1983), The Walker social skills curriculum	grades 8-12	awareness of others communication assertiveness	group relations, reinforcing behavior, friendship, classroom communication, conversation, assertive statements

as being expressed in self-awareness, in turn supported by creativeness and imagination.

Typically, social skills curricula based on the different theoretical positions discussed above have been developed into the "action" curriculum discussed in Ellis and Whittington (1981) by interpreting outcome from a task mastery viewpoint—an approach to curriculum development relying on the efficiency model of industry (Wirth, 1983). In other words, assessing work-related productivity, or student outcome, is predicated on identifying tasks directed to curriculum-based competencies (Brown & Shaw, 1986; Dodge, et al., 1986).

By reviewing social skills curricula currently in print, one may identify the tasks most commonly included. Tasks and associated skill sets thus identified may then be used to develop a comprehensive curriculum planning model which cuts across theoretical interpretations of outcome and related social skills instructional material. Task most commonly included in available social skills instructional material are outlined along with select references in Table 1.

A more extensive review of social skills curricula titles by Sanders (1988) shows that the tasks identified in Table—self-identification, self-expression awareness of others, communication, and assertiveness—are common to curricula used at all age levels. The implication is that in managing the social expectations relevant to a given developmental level the student must master anew the same group of social tasks with the specific content of each task being age-dependent. Furthermore, current thought on social development in children (Shaffer, 1988; Zigler & Finn-Stevenson, 1987) indicates that successful acquisition of social behaviors is dependent on learning prerequisite skills, and supports the idea that these tasks must be arranged as a hierarchy and, therefore, are mastered in other.

THE PERSONAL -COMMUNICATION MODEL

By taking into account the considerations discussed in the above section, one can design and justify a comprehensive curriculum planning model which meets concerns for grades K-12. The resulting model, outlined in Table 2, interprets behavioral outcome from a task point of view, accounts for the five social tasks commonly appearing in instructional curricula, assumes that the tasks must be accomplished anew at each developmental level, and arranges these tasks, along with associated skill sets, within a hierarchy.

Self-Identification

As seen in Table 2, self-identification is the first of five tasks making up the five-task hierarchy. At each developmental level (grades K-2, 3-3, 5-8, 9-12), successful mastery of the self-identification task is quite basic to any developing sense of social competence and is an absolute prerequisite to success with more sophisticated social tasks. Essentially, the self-identification task involves the development of the organize feeling of *Me*. Students who master this task learn skills associated with developing: emotional attachments, an organized

TABLE 2

Social tasks and skill sets of the Personal-Communication Model

Social Tasks	Skill Sets	
Self-Identification	a. emotional attachments b. body concepts c. sense of possession/territory d. fund of personal identifiers	e. knowledge of social systems f. knowledge of personal attributes g. valuing of personal attributes h. expression of likes and dislikes
Self-Expression	a. self-referring positives b. accepting compliments c. identifying feelings	d. linking experiences to feelings e. expression of feelings f. guided imagination
Awareness of Others	a. perspective taking/role-playing b. empathy and caring c. developing friendships d. reinforcing another's behavior	e. forming group relationships f. social problem solving g. goal setting h. responsible decision making
Communication	a. school-related communication b. reading varying social schema	c. beginning, maintaining, and exiting from conversation
Assertiveness	a. review of lower ranking tasks b. knowledge of personal rights	d. assertive, nonassertive, and aggressive behavior b. barriers to assertive behavior

body concept and image, a sense of place, a fund of accurate information relative to physical and personality attributes, and a sense of family.

Students who have successfully mastered the self-identification task experience themselves and daily events as organized, sequential, and continuous. Self-concept and self-esteem are positive and dynamic. Students having problems with mastering this task have wholesale difficulties with managing routing and have a fragmented sense of self-control. Experiences across persons and events lack continuity and order; self-concept and self-esteem tend to be aplastic and negative.

Self-Expression

Self-expression, the second task in the model, is a critical bridge between the self-awareness gained in mastering self-identification and developing relations with others. Considered together, successful mastery of self-identification and self-expression reflects organized and accurate self-awareness, that is, a broad range of self-knowledge reasonably consonant with feedback from the environment. Quality self-expression is dependent on a range of skills associated with positive references to self, evaluating feedback, and identifying, managing, and expressing feelings.

Students who have successfully mastered the self-expression task are positive in self-references and are able to evaluate in a preliminary fashion feedback on themselves and their activities. They possess the self-knowledge and organized experiencing of self necessary to manage their emotional life during times of crisis. Persons having problems with the behaviors associated with self-expression often find it difficult to accept compliments, misinterpret intentions of other persons, are impulsive, and are often engulfed by their emotions during times of crisis. Because of the poorly perceived and articulated self-concept and self-esteem, these students often exhibit a fragile learning style.

Awareness of Others

Successful mastery of the self-identification and self-expression tasks, and the organized understanding of self that emerges, provide a firm foundation for the social learning required by the third major social task: awareness of others. This involves the student moving away from a self-servicing, egocentric interpretation of another's behavior, and beginning to develop behaviors associated with intimacy and autonomy within a group context. The student then is able to enter into hear-and-now social problem solving. Successful mastery of the awareness-of-others task includes developing empathy and caring skills, group relatedness skills, a full range of social problem-solving skills, goal attainment skills, and a conscious exercising of personal values in a manner supporting responsible decision making.

Students successfully mastering this task are able to profit from a variety of group situations, claim friendships, enjoy and profit from cooperative learning, demonstrate age appropriate self-control, and assume responsibility for themselves and their actions. Students having problems in this area of social skills tend to be fairly concrete in their sense of morality, consistently misinterpret other people's behavior, and do not seem to be able to interact in a qualifying supportive fashion. Daily relationships tend to be quite volatile, and they profit little from group experiences. Apart from limited perspective-taking skills, these students often show limited self-control potential, poor goal-setting abilities, make poor use of modeling and imitation opportunities to improve social problem solving, and establish poorly formulated personal goals.

Communication

Although language development and communication skills are an issue throughout the development of social competence in school, for purposes of

instruction, communication is identified as the fourth distinct social task. In keeping with the general structure of the Personal-Communication Model, success with the first three tasks is absolutely essential to the mastery of key behaviors associated with the communication task. In its broadest sense, communication involves the active management of social interaction. Skill sets are interpreted from a pragmatic point of view. They include skills required for achievement in school, those skills necessary for making transition s across persons, settings, and events, and those associated with daily conversation.

A student who is successful with the communication task is actively involved in building and maintaining sound relationships with adult and peer figures. They will have a repertoire of communication skills, and where the person has a broad experiential background, they will be particularly skillful in managing ongoing conversation. Problems with this social task are often seen in youngsters who are excessively withdrawn or aggressive, that is, youngsters with approach and engagement problems. Such students generally show wholesale problems with all lower-ranking social tasks. They often appear quite immature in expressive language, cognition, and moral reasoning. Difficulty in understanding the behavior and motives of others is a spin-off problem further complicating the capacity to initiate and otherwise maintain clear communication with others.

Assertiveness

In this culture, assertiveness is highly valued and is variously seen as a precursor to personal and business related success. Students who are successful in this area possess excellent communication skills and enjoy conflict-free relationships. Assertiveness skills are aimed at improving the quality of relationships and exercising social poise. Instruction associated with the first skill set provides an opportunity for youngsters to review, and synthesize into a common act; material learned in mastering the first four tasks. In the last several skill sets, students will learn more about personal rights and the rights of others and will learn the I messages which support active assertiveness.

Ideally, assertive individuals are able to develop a balance between their own fundamental and secondary needs, and still operate with a caring attitude. Their relationships are relatively conflict free. Chronic problems in this area are most clearly seen in students who consistently find themselves in social situations resulting in harm to themselves or where their actions result in harm to others. Often these are survival-oriented youngsters whose own basic needs have not been met and whose behavior is quite self-centered. The overwhelming desire to fill basic needs, coupled with the lack of understanding of another person's behavior usually makes for shallow and turbulent relations. At the very least, a relatively nonassertive child is easily manipulated by playmates and nonassertive youngsters find themselves quite vulnerable to peer pressure.

CONCLUDING STATEMENT

With the Personal-Communication Model in hand, educators and related services professionals can develop planning which leads to a sustained year-

round social skills instructional program. It provides staff with a means of critiquing and arranging available social skills curricula, thereby satisfying the majority of the problems which interfere with classroom-based social development. The model may be used in the regular classroom to guide preventive programming or in the special education classroom to develop remedial instruction.

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James R. Sanders, Assistant Professor, Special Education Program, Department of Teacher Education, University of Arkansas at Little Rock, 2801 South University, Little Rock, Arkansas 72204.

The Development of an Interactive Video Rating Scale to Measure Social Skills in Early Adolescents

Alan Bain

ABSTRACT

This study investigated the use of interactive video technology in the assessment of social skills. The purpose of the study was to develop an interactive video rating scale which could be used to screen adolescents for participation in social skills training program, measure the efficacy of social skills training, and evaluate the generalization of social skills training to classroom social behavior. The study resulted in the development of a scale which included 16 of the most problematic social skills for early adolescents. Each item is comprised of a video enactment of a problematic social situation and five probable responses to that situation. Items were obtained from a review of the social skills literature and from formal interviews with teachers and students. The contents of the scale were validated by experts in the field of social skills training.

Research in the area of social skills training has been prolific in the last 15 years. Deficiencies in social skill have been associated with juvenile delinquency (Shoemaker, 1979), learning disabilities (Shumaker & Ellis, 1982), social isolation (Hops & Greenwood, 1984), and aggression (Elder, Edelstein & Narrick, 1979). Studies in the area have resulted in a number of positive outcomes including improved behavior in vocational settings (Warrenfeltz et al., 1981) and improved adaptive behavior in problematic social situations (Sarason & Sarason, 1981). As a result, social skills training has become a frequently advocated approach for dealing with the interpersonal communication problems of both handicapped and nonhandicapped children, adolescents, and adults. The increased availability of curricula and training materials for use by educators and other human service personnel is evidence of the growing popularity of this type of training (Bain, 1987).

Despite the research and clinical interest in the area, the definition of social skill remains problematic. Delimiting the term *social skill,* operationally defining what is meant by social skill, and determining to the extent to which skills are generalizable from one social context to another have been recurring topics in the research literature (Curran, 1979; Foster & Richey, 1979; Spence, 1983).

Difficulties in delimiting and defining social skill have also made assessment difficult for researchers. Social skill has been described as a "megaconstruct" or more specifically "an organizing principle for relating a variety of superficially dissimilar behaviors" (Curran, 1979, pp. 66-67). This type of broad conceptualization has required assessors to seek multiple approaches to address the multifaceted nature of social skill (Arkowitz, 1981).

Teacher ratings, sociometric nomination, role-play, self-report, and direct observation are all commonly used techniques in social skill assessment. All of these approaches have been criticized on the grounds that they lack either validity or reliability. Role-play and self-report assessment have been criticized on the basis that they do not represent an individual's behavior in the natural environment (Bellack, Hersen & Tuner, 1978; Gresham & Elliot, 1984). Sociometric nomination fails to provide specific information regarding social skill, and conflicting evidence has been reported regarding its reliability (Busk, Ford, & Schulman, 1973; Hops & Greenwood, 1984). Critics of direct observation suggest that it offers too narrow a conceptualization of social skill and has questionable social validity (Asher, Singleton, Tinsley, & Hymel, 1979; Greenwood, Walker, & Hops, 1977). Teacher ratings have been identified as a potentially useful technique despite a lack of evidence regarding their validity and reliability (Gresham & Elliot, 1984; Van Hasselt, Hersen, Whitehall, & Bellack, 1979).

This study involved the use of indirect teacher ratings to assess social skill and the use of interactive video technology as an assessment medium. Teacher ratings were chosen in preference to the other techniques described because of the optimistic reports regarding their potential as a social skill assessment technique, and in response to the need for further investigation regarding their validity and reliability for social skills assessment. Interactive video was identified as a medium which may assist teachers in making accurate recollections of student behavior.

Interactive Video

Interactive video combines the use of high quality video images with the interactive features of the microcomputer. This technology enables the computer program to control the display of video images and provide feedback based on user input, creating a highly interactive learning environment (Browning, 1985).

Despite limited empirical research, interactive video has received favorable reports as an instructional tool. It has been used for instruction in biomedical education (Branch, Ledford, Robertson, & Robison, 1987), social skills in special education (Thorkildsen, 1985), and job training (Weiss & Jarvis, 1986). A review of the literature did not reveal any interactive video applications to the assessment of social skills. Standard video technology (i.e., video tape without computer) is used frequently in the assessment of social skill and has been described in the assessment literature as analog or contrived observation (Kazdin, 1981). This generally involves direct observational ratings of videotaped role-plays. As previously stated, this approach has been subjected to some criticism regarding the extent to which a role-played interaction

validly represents an individual's behavior in a real social situation. The application described in this study involves the combined use of video and computer. The presentation of video images was used as a stimulus cue to enhance teachers' recollections of previously observed behavior.

Research has shown that when individuals observe social interactions they do not retain all of the specific information available, but more a generalized conceptual representation which omits much of the detail (Bandura, 1986). The responses provided by teachers when asked to recall information about students' social skill in formal interviews supports this view (Bain, 1988). These descriptions often lack specificity and would be difficult to operationalize for the purposes of intervention. Specific recall may not always be possible without the presentation of additional stimulus information. The general conceptual representation of behavior possessed by teachers may also be insufficient to generate the accurate descriptions of the content and contextual factors associated with social skills necessary to design and implement interventions.

A rationale for the use interactive video in the present study (albeit untested at this time) is that teachers' recollections of students' behavior may be enhanced if they are given an opportunity to observe behavior that approximates or is representative of the actual behavior they are attempting to recall. This observed behavior could take the form of video enactment of situations involving the use of social skills.

The procedure described here involves the application of a matching process in which a teacher would compare a video enactment with the representational information they have stored in memory about a particular student. The enactment would serve as a stimulus cue for the recall of specific behavior that is both consistent and inconsistent with inconsistent with information in a memory location, resulting in more detailed recollections and an elaboration of the existing memory structure.

Theoretical support for this position can be found in information processing models of cognitive psychology, particularly in relation to memory and schema theory (Alba & Hasher, 1983; Rumelhart & Ortnon, 1977). Of particular interest to the present discussion is the manner by which incoming stimuli serve to act on existing memory structures known as schema. Researchers in this area have described a number of processes (e.g., instantiation) that involve the specification of schemata on the basis of new information from a perceived stimulus (Anderson, 1977; Bobrow & Norman, 1975).

Common to these explanations is the view that the receipt of new information may serve to invoke a problem-solving or matching process which can result in more elaborated schemata as new information is matched and compared with the existing information in a memory location (Schallert, 1982).

The long-term goal of this research is to determine whether this explanation can be applied to the assessment of social skills by including video sequences in an interactive assessment device. The present study developed stimulus materials for this purpose and included the development of an assessment device that incorporated interactive video and conformed to accepted standards for psychological and educational tests. This involved empirically

generating the contents of interactive video enactments and developing a computer program to both mediate the display of the video enactments and enable teachers to record their ratings.

The early adolescent population was chosen as a target group because of the high frequency of inappropriate social behavior associated with this developmental period (Gullota, 1983). These problematic behaviors frequently occur in school settings, creating problems for both teachers and students (McBowell, 1981)

METHOD

A fundamental consideration in developing in the scale was the need to employ a procedure that would empirically generate the contents of the interactive video items on the scale. This involved sampling the school situations that were problematic for early adolescents and the use of specific social skills. The Behavior Analytic Method (Goldfired & D'Zurrilla, 1969) was selected for this purpose. Specifically, this method is comprised of the following five components:

Situational Analysis: A comprehensive survey of the relevant situations in the environment with which the individual must cope.

Response Enumeration: A sampling of possible responses is obtained for each problematic situation that was reported to have a high likelihood of occurrence in the situational analysis.

Response Evaluation: A determination of the degree of effectiveness of each of the potential courses of action in terms of its likely effect or consequences.

Development of Measurement Format: The resultant additive combination of the situational analysis, response enumeration, and response evaluation which provides a content base and format for the device.

Evaluation of Measure: This component involves the application of existing standards of test evaluation to the completed instrument.

This method was used to make a determination of what constituted effective social skill for early adolescents in school settings and to survey the range of relevant social situations in those settings. Figure 1 presents an overview of the instrument development and evaluation procedure.

Component 1: Skill Identification and Ratification

This initial component of the instrument development procedure involved the identification of specific social skills that are problematic, deficient, or infrequently used by early adolescent-age students. This step was undertaken to utilize the existing literature in the area of social skills training with adolescents. It was assumed that in their selection of social skills for inclusion in experimental interventions or social skills curricula, researchers and curriculum planners had responded to social situations and skills that are problematic for students.

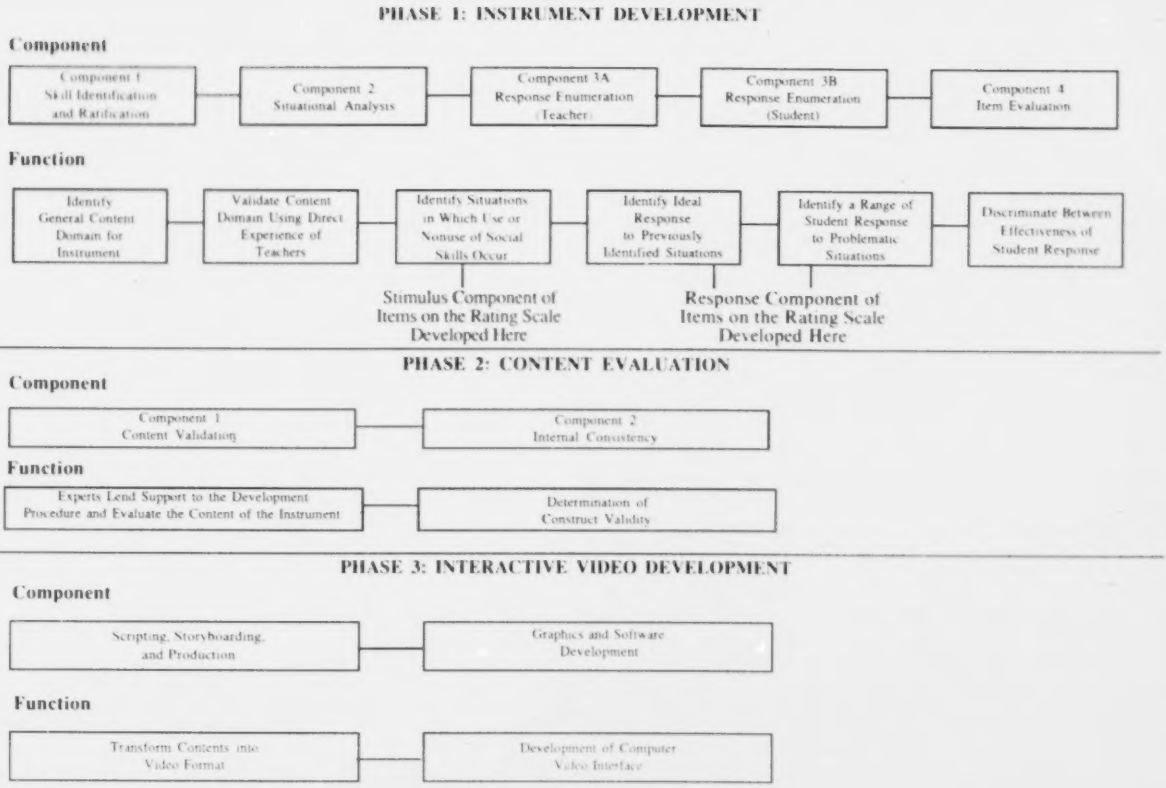
PHASE 1: INSTRUMENT DEVELOPMENT
Component
Component 1 Skill Identification and Ratification
Component 2 Situational Analysis
Component 3A Response Enumeration (Teacher)
Component 3B Response Enumeration (Student)
Component 4 Item Evaluation
Function
Identify General Content Domain for Instrument
Validate Content Domain Using Direct Experience of Teachers
Identify Situations in Which Use or Nonuse of Social Skills Occur
Identify Ideal Response to Previously Identified Situations
Identify a Range of Student Response to Problematic Situations
Discriminate Between Effectiveness of Student Response
Stimulus Component of Items on the Rating Scale Developed Here
Response Component of Items on the Rating Scale Developed Here
PHASE 2: CONTENT EVALUATION
Component
Component 1 Content Validation
Component 2 Internal Consistency
Function
Experts Lend Support to the Development Procedure and Evaluate the Content of the Instrument
Determination of Construct Validity
PHASE 3: INTERACTIVE VIDEO DEVELOPMENT
Component
Scripting, Storyboarding, and Production
Graphics and Software Development
Function
Transform Contents into Video Format
Development of Computer Video Interface

Figure 1. *Schematic diagram of instrument development and evaluation procedure.*

TABLE 1

Results of Skill Identification Component

Item	Skill	Percentage Agreement
1	Giving negative feedback	96
2	Receiving negative feedback/being criticized	85
3	Resisting peer pressure	85
4	Apologizing	81
5	Describing own feelings	89
6	Making positive self-statements	83
7	Expressing anger/frustration appropriately	98
8	Asking for help/making a request	69
9	Volunteering answers	74
10	Standing up for a friend	61
11	Dealing with an accusation	92
12	Loudness of voice	81
13	Recognizing others' feelings	83
14	Negotiating	51
15	Listening to others in conversation	85
16	Initiating/engaging in conversation	58
17	Receiving compliments	65
18	Giving compliments	69
19	Dealing with embarrassment	83
20	Greeting/saying good-bye	49

A review of the literature, curricula, and assessment devices in the areas of social skill training with adolescents was undertaken for the purpose of identifying specific social skills to be used in the situational analysis procedure. A matrix was developed using information obtained from this literature review. All the articles and programs reviewed were listed on the abscissa of the matrix while the social skills identified in the review were placed on the ordinate. Participating in this component of the study were 55 junior high school teachers (special, juvenile justice, and regular education) randomly selected from rural and urban school districts in the United Stated Midwest and an urban school system in Australia. The teachers reviewed the matrix and identified the skills that were problematic for students in their classrooms. This procedure resulted in the development of a pool of 20 social skills. Table 1 describes a list of the skills obtained from the social skills literature that were ratified by teachers as being problematic for early adolescents.

Component 2: Situational Analysis

The same group of 55 teachers described in Component 1 participated in this stage of the instrument development procedure. The teachers were interviewed in order to identify and describe problematic situations that occurred in their classrooms associated with deficiencies in, or nonuse of, the skills ratified in Component 1. This interview was tape recorded. After

completing the interviews, the responses of all 55 teachers were reviewed in order to identify the most commonly occurring problematic classroom situation associated with each of the social skills addressed in the interview. The situations described by teachers were used as stimulus items for Component 3, the response enumeration component of the study. These situations were also scripted, storyboarded and enacted later in the instrument development procedure to become the stimulus for each of the items on the scale.

Table 2 describes the situations identified by teachers for the pool of social skills obtained from Component 1. Each situation is matched with its respective skill. As a result of the situational analysis, the pool of skills was reduced to 16. This was due to the failure of some teachers to generate consistently identified problematic situations for particular skills.

Component 3: Response Enumeration

A Likert scale incorporating five behavioral descriptors was chosen as the response mode for the rating scale. The descriptors provided behavioral referents for each of the points on the scale. Elder, Wallace, and Harris (1980) advocated the use of this approach as a means of reducing the subjectivity of ratings by focusing the rater on specific behavioral descriptors for different levels of social skill. This behavioral descriptors were later transformed into video enactments of the responses. This enabled the rater to observe the enacted problematic situation for each skill and then also view each of the responses to that situation. The response enumeration component explains the procedures used to generate the behavioral descriptors for the video Likers scale. This involved sampling responses to the problematic situations identified in the situational analysis.

The response enumeration component was divided into two subcomponnents: The first involved sampling ideal or optimum responses to the problematic situations from a group of teachers; the second involved sampling a range of possible responses from a group of students.

Component 3A: Response Enumeration (Teacher)

Participating in this component of the study were 8 special education teachers of emotionally impaired and learning disabled students. The teachers were participants in a series of social skill training workshops given by the researcher. This component of the study required reachers to formalize an optimum response to each problematic situation. The knowledge of social skill and social skill training acquired during the workshops provided teachers with the necessary background and contextual information to develop valid ideal responses to the problematic situations.

The teachers were asked to read the problematic situations and to write an ideal response for each of them. They were also told that the responses should be ideal for a 12 to 15-year-old individual. An ideal response was defined for the teachers as the response that would maximize the positive outcome for a 12 to 15-year-old student and would minimize harm to others (Speance, 1983). The responses were reviewed by the researcher and those

TABLE 2

Summary of Situational Analysis

Skill	Problematic Situation
1. Receiving negative feedback	The student is teased in from of class by another class member when s/he answers a question incorrectly.
2. Resisting peer pressure	The student is asked to skip class by a group of his/her friends.
3. Describing own feelings	The student arrives as school in a bad mood. The teacher asks, "What is wrong?"
4. Making positive self-statements	The student has a positive experience outside of school and is particularly happy and proud.
5. Expressing anger/ frustration	The student becomes angry and frustrated after and frustrated after being told to rework an assignment.
6. Asking for help/making a request	The student becomes angry and frustrated after being told to rework an assignment.
7. Volunteering answers	The teacher asks the class a question during group discussion.
8. Standing up for a friend	The student observes a group of class members teasing one of his/her friends.
9. Dealing with an accusation	The student is accused of stealing by a fellow class member. The teacher asks the student if s/he did it.
10. Listening to others in conversation	The student's attention is distracted by another class member while the teacher is giving instructions.
11. Initiating/engaging in conversation	The student encounters a new class member in the hall after class.
12. Receiving compliments	The teacher compliments the student for doing a good job on an assignment.
13. Giving compliments	The teacher compliments another member of the class for doing a good job on an assignment.
14. Dealing with embarrassment	The student becomes embarrassed when other class members laugh at an incorrect answer s/he has given.
15. Greeting	The student is welcomed by the teacher on entering class in the morning.
16. Saying goodbye	The teacher says goodbye as the student leaves class.

TABLE 3

Summary of Response Enumeration A
Ideal Responses to Problematic Situations

Problematic situation	Ideal Response
The student is teased in front of class by another class member when s/he answers a question incorrectly.	Ignore the student who is teasing.
The student is asked to skip class by a group of his/her friends.	Refuse to skip and explain the reason to his/her friends.
The student has a positive experience outside of school and is particularly happy and proud about it.	Tell his/her friends during a break, outside of class, or at a time given by the teacher in class.
The student becomes angry and frustrated after being told to rework an assignment.	Take some time to cool down and then ask the teacher to help in reworking the assignment.
The student has a problem with class work and needs the teacher's help.	Follow the class rule (i.e. approach teacher's desk).
The teacher asks the class a question during group discussion.	Raise his/her hand and wait to be called upon by the teacher.
The student observes a group of class members teasing one of his/her friends.	Tell his/her friend to ignore the teasing and assists the friend to leave the situation.
The student is accused of stealing by a fellow class member. The teacher asks the student if he/she did it.	Respond honestly to the accusation in a calm voice.
The student's attention is attracted by another class member while the teacher is giving instructions.	Ignore the distraction and pay attention to the teacher.
The student encounters a new class member in the hall after class.	Introduce him/herself and initiate a conversation.
The teacher compliments the student for doing a good job on an assignment	Thank the teacher.
The teacher compliments another member of the class for doing a good job on an assignment.	Give the class member a compliment.
The student becomes embarrassed when other class members laugh at an incorrect answer s/he has given	Ignore the laughter and try again.
The student is welcomed by the teacher on entering class in the morning.	Greet the teacher appropriately.
The teacher says goodbye as the student leaves class.	Use an appropriate departing response (i.e., goodbye, see you later).

most frequently identified were included in the Social Skills Rating Scale. This component resulted in the identification of a criterion response for each of the problematic situations identified by teachers. Table 3 describes the results of this component.

Component 3B: Response Enumeration (Student)

Participating in this component of the study were 55 junior high school-age students (ages 12-15). Students were randomly selected from regular, special, and juvenile justice education in the same United States and Australian schools as the teachers who participated in the situational analysis component of the study. Sampling was restricted to regular education, juvenile justice education, learning disabled, and behaviorally disordered students. These were the target groups for whom the instrument was intended.

In this component of the study, students were interviewed in order to identify and describe responses to the problematic situations previously identify by the teachers. The interviews were tape-recorded and responses transcribed onto a standardized recording form. A verbal description of each of the problematic situations was read to the student by the researcher, and the student was then directed to respond to the following questions for each situation described.

> Has the situation described occurred in classes that you have attended while a junior high school student? (Students at the juvenile facility were asked to respond with their experiences in the junior high school(s) they had attended or with their experiences at the juvenile facility.)
> What would you do if you were placed in this situation?
> What have you seen others do when placed in his situation?

The responses identified by students were used to develop generalized behavioral descriptors which were then matched with their corresponding problematic situations as identified previously by the teachers. Figure 2 describes the response options identified by the students.

Component 4: Item Evaluation

This component of the instrument development procedure involved the ordering of the responses identified in the enumeration component of Phase 1. Two judges were selected to undertake the item evaluation. The judges were selected according to the criteria identified by Goldfried and D'Zurilla (1969, pp. 166), that is, those individuals who have frequent contact with the people to whom the assessment technique will be applied, have an important role in labeling or judging behavior as effective or ineffective in the environment, and whose opinions are likely to be respected by others, particularly those toward whom the instrument will be directed. Both judges were directors of programs for behaviorally disordered adolescents. They were actively involved in the day-to-day management of student behavior and insetting policies for behavior in their respective settings.

The judges were asked to rank the student responses for each of the problematic situations in an order that reflected the effectiveness of each response in dealing with situation. The description of effectiveness determined

by Goldfried and D'Zurilla (1969) was also provided to the judges so as to ensure that they were operating from a consistent frame of reference in making their judgments. Effectiveness was described as determining whether or not the response is likely to resolve the problematic nature of the situation and minimize possible negative consequences.

A modification of the Q-sort technique (Stephenson, 1953) was used to evaluate the items. Each of the social situations identified in the situational analysis was transcribed onto a 3 in. x 5 in. card. The responses to each of the situations identified by students were also transcribed onto separate 3in x 5in cards.

The judges were given a situation card to read and after indicating that they understood the situation, they were given the corresponding randomly-ordered student response cards. The judges were then asked to arrange the cards according to their effectiveness in dealing with the problematic situations. This procedure was repeated for each of the problematic situations. Figure 2 describes the rankings assigned to the responses by the judges. A compilation of the results obtained from the preceding instrument development components were used to compile a paper-and-pencil version of the instrument. The format for this version is also depicted in Figure 2.

PHASE II

Component 1: Content Validity

In this component of the instrument, evaluation-phase expert judges examined the paper-and-pencil version to determine its content validity. This evaluation was used as a summative review of both the content of the instrument and the use of the Behavior Analytic Method as a development technique.

The instrument was sent to two individuals recognized as experts in the field of social skill. The designation of *expert* was based upon the individual having a demonstrated record of publication and other scholarly activity in the field. In addition, it was deemed appropriate that the experts should have regular contact with students of the age and description of those with whom the instrument would used.

The experts were asked to review the procedures used in Phase 1 of the study to determine the adequacy of the approach for determining the content of the instrument, and review the items to make a determination as to whether they were representative of the content domain of social skill. Both experts found the methodology to be sound and the items which would be included in the interactive video instrument to be representative of the content domain of social skill.

Component 2: Internal Consistency

This component involved making a determination of the equivalency of items on both paper-and-pencil and interactive video versions of the rating scale. Regular, special education, juvenile justice education system, and residential facility teachers (40) participated in the internal consistency check for the paper-and-pencil version. The teacher ratings were analyzed using the

	Skill and Situation	Response 1	Response 2	Response 3	Response 4	Response 5
6	Greeting. The student is welcomed by the teacher on entering class in the morning. In response, the student would:	greet the teacher appropriately (i.e. Hello, Good morning, etc.).	acknowledge the attention but fail to respond verbally.	ignore the teacher.	make a negative or sarcastic remark to the teacher.	become verbally aggressive and abuse the teacher.
7	Saying goodbye. The teacher says goodbye as the student leaves class. In response, the student would:	use an appropriate departing response (i.e., Goodbye, See you later, etc.).	raise hand and call out for teacher's attention.	ignore the teacher and walk by.	make a negative or sarcastic comment.	become verbally aggressive and abuse the teacher.
8	Answering questions. The teacher asks the class a question during group discussion. In response, the student would:	raise his/her hand and wait to be called upon by the teacher.	tell the a class member to wait until the teacher is done.	call out the correct answer or an appropriate response.	do nothing.	call out an inappropriate answer to draw attention to himself or herself.
9	Listening. The student's attention is attracted by another class member while the teacher is giving instructions. The student would:	ignore the distraction and pay attention to the teacher.	tell the class member to wait until the teacher is done.	tell the student to be quiet.	try to give attention to both classmates and teacher.	begin conversing with the classmember.
10	Accepting compliments. The teacher compliments the student for doing a good job on a piece of work. In response, the student would:	thank the teacher.	become very excited.	say nothing.	play the compliment down (e.g., It wasn't that good, or You don't mean it.).	use the compliment as an attention seeking device (e.g., brag drawing attention of the rest of the class).
11	Dealing with embarrassment. The student becomes embarrassed when other class members laugh at an incorrect answer has given. The student would:	laugh at the mistake as well.	ignore the laughter and try again.	cry, become upset or withdraw.	begin an argument.	physically assault the student laughing.

12	Dealing with negative feedback. The student is teased in front of the class by another class member when answers a question. In response the student would:	ask the student calmly to stop teasing.	ignore the student who is teasing.	begin an argument.	cry and tell the teacher.	physically assault the student teasing.
13	Expressing feelings. The student arrives at school in a bad mood. The teacher asks what is wrong. In response, the student would:	briefly and politely explain whether s/he wants to discuss the problem.	ignore the teacher.	cry, become upset, or withdraw.	make a negative inappropriate comment (e.g., None of your business).	become physically aggressive.
14	Dealing with anger. The student becomes angry and frustrated after being told by the teacher to rework and assignment. In response the student would:	take some time to cool down and then ask the teacher for help in reworking the assignment.	do nothing.	cry, become upset, or withdraw.	refuse to complete the assignment and argue with the teacher.	become physically aggressive (e.g., attack the teacher).
15	Dealing with an accusation. The student is accused of stealing by a fellow class member. The teacher asks the student if s/he did it. The student would:	respond honestly to the accusation in a calm voice.	do nothing (refuse to respond).	become anxious and upset.	respond untruthfully and argue with the teacher.	threaten or attempt to assault the student/teacher.
16	Dealing with peer pressure. The student is asked to skip class by a group of his/her friends. He or she would:	refuse to skip and explain to his/her friends.	refuse.	ignore them.	become indecisive, confused, and upset.	skip class with his/her friends.

Figure 2. *Skill, problematic situation, and ordered response options for each item on the rating scale.*

	Skill and Situation	Response 1	Response 2	Response 3	Response 4	Response 5
1	Making a request. The student has a problem with classwork and needs the teacher's help. He or she would:	follow class rule (i.e., raise hand, approach teacher's desk, etc.).	call out for the teacher's help.	ask another student for help.	do nothing.	become frustrated. Complain about the work or refuse to continue (e.g. I'm not doing this.)
2	Giving compliments. The teacher compliments another member of the class for doing a good job on an assignment. The student would:	giving the class member a compliment.	ask that a class member, How did you do it?	do nothing.	make a negative or sarcastic remark (e.g., teacher's pet).	respond violently by attempting to destroy that person's work or attacking him/her physically.
3	Making positive self-statements. The student has a positive experience outside of school and is particularly happy and proud of it. In telling other class members the student would:	tell his/her classmates/friends during a break, out of class, or at a time given by the teacher.	tell the teacher.	wait until someone asked about it.	do nothing (would not tell anyone).	brag indiscriminantly in front of the class.
4	Standing up for a friend. The student observes a group of class members teasing one of his/her friends. The student would:	tell his/her friend to ignore the teasing and assist the friend in leaving the situation.	tell the teacher.	argue with the students doing the teasing.	ignore the teasing and not get involved.	fight (e.g. attempt to strike the students doing the teasing).
5	Initiating a conversation. The student encounters a new class member in the hall after class. He or she would:	introduce him /her self and initiate a conversation.	say Hello but not converse with the new student.	ignore the new student.	tease the new student.	physically assault the new student (push, trip, etc.).

Figure 2. *Skill, problematic situation, and ordered response options for each item on the rating scale (Cont.).*

Cronbach alpha coefficient (Cronbach, Gleser, Nasda, & Rajaratnam, 1972). An Alpha coefficient of .89 was obtained from an analysis of teachers' ratings across items. This result indicates a high degree of equivalency among items on the paper-and-pencil rating scale regarding the extent to which they are measuring the same construct.

A pilot study was undertaken using a prototype version of the interactive video device to determine the internal consistency of that format. Participating in this study were 34 high school teachers. An alpha coefficient of .86 was obtained from an analysis of teacher ratings of the video items.

PHASE III

This phase involved transforming the problematic situations and responses for each item into video format and developing the computer software necessary to enable teachers to use the interactive video rating scale.

Component 1: Scripting Storyboarding and Production

In this component each of the problematic situations and responses were prepared for video production. A professional scriptwriter was provided with the 16 situations and their corresponding responses and instructed to develop a simple script and storyboard for each item. Next, the scripts and story board were reviewed by the researcher to ensure that they were consistent with the information provided in the previous phases of the study. Each of the items were video taped using adolescent-age actors in the principal roles. This included the production of a separate male and female version for each item. Then the raw video footage compiled over an 8-day production period was edited to compile the most accurate representation of each of the problematic situations and responses.

Component 2: Graphic and Software development

A Commodore Amiga 2000 computer with genlock was used in this component to interface the video images developed in the previous component with computer graphics. Graphics were developed to provide user feedback, and included a graphic display of the teachers ratings, instructions and titling, and an interactive *test manual*. While the user is making ratings, this manual can be called onto the screen to clarify procedures for making ratings or provide background information on the scale. Also, program was written to enable the computer to drive the video-tape player and mediate the computer video interface. This involved the development of a video control unit which responded to the computer program by reading musical tones laid on a control track of the videotape. The video computer interface enabled the user to locate any point on the tape in order to review the situations and responses or replay the instructions for using the scale.

DISCUSSION

This study addressed the use of interactive video to develop a valid and reliable teacher rating scale to assess the social skills of early adolescents. Such scale could have utility in screening adolescents for participation in social skill

training programs, in measuring the efficacy of social skills training, and in measuring the generalization of social skills training to classroom social behavior.

The study responded to the absence of valid and reliable teacher rating scales for use with an early adolescent population and the potential for the use of interactive video in this area. This early adolescent population was selected for study because of the often problematic nature of their school and general social behavior. A need existed to develop a device that could be used as a screening tool and an outcome measure for social skill training interventions with early adolescents. Indirect observation by teachers was selected as the assessment technique because of its potential to provide important topographical and contextual information about student social skill. This type of information is crucial in social skill assessment (Arkowitz, 1981). Interactive video was incorporated as a technology which may assist teachers in making recollections of student behavior. The methodology employed in this study and the design of the instrument focused on the need for contextual information when assessing social skill. The indirect observation method of rating social skill also can be used in conjunction with other approaches (e.g., direct observation) in a multifaceted approach to social skill assessment. The rating scale developed in this study can be used in conjunction with other approaches and will compliment a multifaceted approach to social skill assessment.

The study used the behavior analytic approach (Goldfried & D'Zurilla, 1969) as methodological procedure to validate the content of the Social Skills Rating Scale. This approach was selected in order to determine the content of the device by interviewing regular and special education teachers and students and by using their responses to develop items for the scale. The contents of the device were subjected to a review by experts to determine content validity. Internal consistency data was obtained for both interactive video and paper-and-pencil versions of the scale. The internal consistency of the interactive video format proved to be lower than that of a comparable paper-and-pencil instrument based on the results of a pilot study. This may indicate differences associated with the video versus paper-and-pencil versions but could also reflect the influence of other factors including the smaller number of subjects and the prototype version of the interactive video device used in the pilot study.

At the time of data collection the graphic and video interface components of the device were incomplete. Items on the interactive video scale were not labeled as clearly as those on the paper-and-pencil device and teachers' responses were reported verbally to the researcher conducting the study instead of being entered directly into the computer. These factors may have influenced the ratings made by teachers. Further research should include a larger group of subjects and the completed version of the interactive video device to make an adequate determination of its internal consistency.

The final scale consisted of a total of 16 items , 5 of which pertained to initiating interpersonal social interaction in school classrooms and 11 of which pertained to responding in interpersonal social interactions. The items on the

scale were made up of a video enactment of a problematic social situation and five response options, each of which is composed of a behavioral descriptor that represents a possible student response to the problematic situation. The scale was designed to be completed by the classroom teacher who views the problematic situation for each item and records via the computer the one response option that best describes the way the student being rated would respond in that situation.

CONCLUSIONS

Based upon the stated purpose and the results of this study, a number of conclusions can be drawn. The careful scrutiny of both the content and context of the situations included in the instrument resulted in a scale that has a high degree of content validity. This validity was ratified by the experts who reviewed contents. The organization of the instrument makes it highly compatible with existing social skill training programs. Each of the social skills assessed is labeled in a manner that is consistent with the way social skills are described in training programs. This means that, after rating a student and identifying deficiencies, a teacher could readily access an intervention strategy to remediate the problematic skill in a social skill training program. The item descriptor on the rating scale can be matched with a skill descriptor in a social skill training program to identify the specific lesson intervention for the problematic skill. The clear specification of an enacted problematic situation for each skill and the accompanying responses provides teachers with a large amount of useful contextual information about the nature of the behavior of the student being rated. The enacted behavioral descriptors, for example, can be used in describing target behaviors and developing behavioral objectives. The problematic situations may assist teachers in developing a description of the contextual circumstances for conducting social skills training (e.g., using the problematic situations for developing role-play scenarios). As such, the device can serve as a useful formative tool for planning instruction in addition to identifying social skill problems.

Future research on the Social Skills Rating Scale should seek to extend the validation process (including further investigation of its reliability) and to compare the interactive video format with alternative approaches regarding the extent to which they facilitate accurate recall of student behavior. In addition, the scale could be compared with other instruments to determine convergent and discriminant validity.

While this study has focused on the school classroom as a criterion situation for assessment, the methodology used could readily be applied to social skill assessment in other contexts (e.g., in the home using parent and child input to analyze problematic situations). Such research could provide important information on the situational specificity and stability of social skill in an early adolescent population and broaden the applications of interactive video to the assessment of social skill.

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Alan Bain, Department of Education, The University of West Australia, Nedlanda, West Australia 6009, AAustralia.

What Happens After the First Job Placement: Vocational Transitioning Among Severely Emotionally Disturbed and Behavior Disordered Adolescents

Judith A. Cook[1], Mardi L. Solomon, and Lynne Owens Mock

Over the past decade there has been increasing recognition of the employ ability of handicapped youth due, in part, to research and demonstration projects indicating the effectiveness of vocational rehabilitation for these individuals (Bellamy Wilcox, Rose, & McDonnell, 1985). Educational and vocational services enabling disabled youngsters to make the transition from school to work have been proposed and implemented for youth with many types of disabilities, including mental retardation (Martin, Schneider, Rusch, & Geske, 1982; Rhodes & Valenta, 1985), learning disabilities (Gajar & Hameister, 1985; Geist & McGrath, 1983), hearing impairment (Lexington Center, 1985), visual impairment (Davison, 1975), orthopedic handicaps (Rosenberg, 1978), and epilepsy (Clemmons & Dodrill, 1983). This article explores the experience of severely emotionally disturbed/behaviorally disordered late adolescents (ages 16 through 22) participating in a transitional employment program in inner city Chicago in an effort to understand which factors are associated with vocational success for this population of troubled adolescents.

REVIEW OF THE LITERATURE

The Transitional Employment Model.

Thresholds Research Institute is a psychosocial rehabilitation center in Chicago serving students with severe behavioral disorders and emotional disturbances. Younger clients participate in the Young Adult Program which provides individual case coordination and therapeutic group services along with education and training to develop vocational and social coping skills. One

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of the goals of this program is enabling youth to secure competitive employment and maintain independent living in the community. The program is part of a U.S. Department of Education funded model demonstration project for the transition of mentally ill youth from high school to the workplace (Cook, 1984).

The psychosocial model (Beard, Propst, & Malamud, 1982; Dincin, 1975) used at the agency stresses vocational rehabilitation in which the youngsters start out on the in-house kitchen crew where they prepare the noon meal for 80 to 100 people in the agency every day. Here, the focus is on learning basic transferable work skills such as arriving at work on time, taking supervision, and getting along with coworkers. After a successful experience which may last from 3 to 6 months, they progress to their first paid job placement—the group placement—with a community employer and an agency staff member (the Job Coach) working alongside a group of clients. Following successful completion of a group placement, the young person moves on to an individual placement in which s/he is supervised directly by the employer and works without the company of other behaviorally disordered youngsters. The final step in the model is finding one's own job which the youth locates through employer-client matching or with the help of an agency Job Club, and holds independently while continuing to receive supportive services through a night program for employed youth. The model of transitional steps toward competitive employment has been widely researched and its effectiveness has been demonstrated in several studies of adults with severe and persistent mental illness (Barry, 1982; Beard, Malamud, & Rossman, 1978; Dincin & Witheridge, 1982; Glascote, Cumming, & Rutman, 1971; Mosher & Keith, 1978; Paul & Lentz, 1977).

Research on Vocational Outcomes.

Very little research has focused on the vocational potential of mentally ill youth; most studies in this area have addressed the occupational performance of psychiatrically disabled *adults* or the employment experiences of *nonhandicapped workers* during the teenage and young adult years. The following reviews the literature in these two areas and explicates a series of independent variables which are of potential importance in understanding the vocational performance of emotionally disturbed/behaviorally disordered adolescents.

Demographic Features.

Three demographic variables which have been shown to be important in studies of employment among nonhandicapped youth are minority status (Borus, 1981), gender (Powers, 1986), and age (Osterman, 1980). In addition, research done at the agency has also confirmed a link between vocational performance and these three variables for psychiatrically disabled youth (Cook, Roussel, & Skiba, 1987), as well as for adults (Cook & Roussel, 1987). Douzinas and Carpenter's (1981) study of mentally ill vocational rehabilitation clientele found higher employment rates among black than among white adults. Test and Berlin (1981) cited research indicating lower employment rates and lower earned income levels among women with severe mental illness as

compared to their male counterparts. Cook's (1986) study of male and female vocational performance in a psychosocial rehabilitation center found that women held significantly fewer group placements than men but had a significantly longer average job tenure (number of days per position). Another study of mentally ill adults found poorer vocational outcomes in a job placement program for younger clients than for older clients (Cook, & Roussel, 1987).

Illness Characteristics.

A major conclusion of Anthony and Jansen's (1984) review of research on the vocational potential of adults with mental illness was that illness characteristics were not reliable predictors of work performance. These authors cited 13 different studies indicating that neither psychiatric symptomatology nor diagnosis has been shown to be a significant predictor of the employability of persons with persistent mental illness. Similarly, in a study of over 1,400 persons with severe mental illness in 11 states and the District of Columbia, Grusky, Tarney, Mandersherd, and Grusky (1985) found that work performance (measured as number of hours employed in the community) was not related to number of hospitalizations nor to length of hospitalizations. Likewise, Gray (1980) found that degree of symptom impairment was not associated with the success of mentally ill clients in a sheltered workshop program.

On the other hand, several studies *have* identified a link between diagnostic category and work performance. In one investigation, individuals with diagnoses of schizophrenia experienced significantly poorer vocational outcomes than those with nonschizophrenic disorders (Wilson, Berry & Miskimins, 1969). In addition, the study reported above that found employment unrelated to number and duration of hospitalizations also discovered significantly poorer employment among those with diagnoses of schizophrenia (Grusky et al., 1985). In his case reports of vocational rehabilitation of emotionally disturbed adolescents, Schneider (1982) noted the importance of knowing a young person's diagnosis and severity of disturbance at the point of job placement. Taken together, these studies suggest some disagreement in the literature in regard to the predictive validity of illness features.

Previous Work History

Anthony and Jansen (1984) cited over 13 studies indicating that the best demographic predictor of a psychiatrically disabled individual's future work performance is prior employment history. Specifically, every study addressing this link has found a positive relationship between vocational performance and prior employment features such as presence and length of preillness work history, prior occupational status, and degree of upward job mobility.

The unanimity of these findings is interesting given the current debate over the value of work for nonhandicapped youth (Powers, 1986). Recent works by Greenberger and Steinberg (1981), and Greenburger, Steinberg, Vaux, and McAuliffe (1980) indicate that youth employment may encourage cynical apathetic attitudes toward work because of the mindless nature of many jobs available to teenagers (e.g., fast food and other secondary labor market occupations). Teenage work experiences are thought to foster deviance

through introducing young workers to petty white-collar criminal activity, and to encourage compulsive materialism and unnecessary commodity consumption. On the other hand, numerous researchers, educators, and policy makers claim that youth employment is largely beneficial, instilling young people with valued work habits, interpersonal skills necessary for relating to supervisors and coworkers, and better mental and physical health (Carnegie Council on Policy Studies on Higher Education, 1979; Panel on Youth, 1974).

Personal and Social Resources.

The final group of variables related to vocational performance includes resources that young adults may draw upon in achieving vocational success. The first of these is physical health. Very little is known about the vocational performance of persons having physical impairment(s) in addition to their mental illness. In one of the few studies addressing this question, Grusky et al. (1985) found that in their sample of adults with severe mental illness the presence of physical problems was negatively related to number of days employed. Several studies have documented employer beliefs that physically disabled workers exhibit higher absenteeism and lower productivity than their physically nondisabled counterparts (Freedman & Keller, 1981; Jamero, 1979; Nathanson, 1977).

The second type of personal resources consists of a young adult's social skills which are crucial for dealing with employers, coworkers and other persons in the job setting. Anthony and Jansen (1984) cited a variety of studies indicating that the psychiatrically disabled individual's level of social skills and participation in social rather than isolated activities comprise another set of valid predictors of employment outcomes. For example, the ability to establish satisfactory interpersonal relationships has been positively related to vocational success in psychosocial programs such as the one studied in the present analysis (Ross, Menapace & Teitelman, 1981). Moreover, participation in social leisure-time activities has been shown to be related to greater likelihood of paid employment among patients released from inpatient care (Tessler & Mandersheid, 1982).

A third and final type of resources consists of the social relationships a young adult derives from her/his family. This is a particularly important variable in this study of mentally ill youth, given the greater relevance of familial features for a younger population. In his article on disturbed adolescents, Schneider (1982) noted the importance of the family in supporting vocational achievement. In particular, the presence of nondisabled siblings who may serve as sources of encouragement, act as role models, and even provide job leads may influence a psychiatrically disabled youth's vocational performance.

Research on Job Leaving.

Little is known about job leaving patterns of mentally ill youth and this is true of their nondisabled counterparts as well. Only a few studies have examined the job termination experiences of young workers, and these find that youth view their early employment as transitory and temporary, showing a higher quit rate than their adult counterparts (Shapiro, 1983). For example, restricting his research to the job-leaving patterns of males, Osterman (1980)

showed that quit rates sharply declined with age among an NLS 1969-1970 panel of 18-to 30-year-olds. This author found that up to a point (age 20 for whites and 26 for blacks) early job instability did not affect men's later job stability. He proposed a stage theory of quit behavior among boys in which an earlier *moratorium stage* characterized by a short-term orientation toward jobs is replaced by a *settling-down stage* characterized by less quitting, longer job tenure, and steadier labor force commitment. Similarly, Reisman (1985) found that most of the youths she studied did not hold their jobs for the entire 12-month period of the research. Thus, high job turnover seems to be a feature of youth employment.

Research Questions.

Given the foregoing literature, it is apparent that many contradictory findings characterize the research on mental illness and vocational achievement. One difficulty is that the focus of much of this research is on *adults*, leaving questions as to whether or not similar trends operate for younger persons who are mentally ill.

A second problem is the number of different ways of operationalizing vocational outcomes used int his research (e.g., number of days employed, hourly salary, job type), preventing a clear understanding of which features are related to job length versus upward mobility, or to occupational prestige versus salary level.

A third problem is the lack of detailed attention to the intervening steps of the transitional employment model. That is, we know little about which factors are related to movement from jobs with lesser autonomy and independence to jobs more closely approximating competitive employment. In addition, little is known about the relationship between job tenure and vocational sequencing. And perhaps most important, very little research attention has been directed toward disabled youths' *own* perspectives on employment and autonomy, and their feelings about terminating employment.

In order to address some of these lacunae, the present analysis focuses on three questions: (a), Under what types of circumstances did these youths leave their jobs? (b), Which factors were associated with movement from a first job to a second position of greater autonomy, and which were associated with movement to positions offering lesser or equivalent degrees of autonomy? and (c), How long did these youths tend to hold their positions, and did job length increase or decrease with each successive position?

METHODOLOGY

Sample.

The sample consists of 59 youths classified as emotionally disturbed or behaviorally disordered, who have participated in the vocational rehabilitation program at Thresholds. Of the youths in the sample 39 are no longer active in the Young Adult Program while the remaining 20 are still receiving program services. Of the 39 individuals who are no longer active, 9 were still working when they left the program, and 30 were unemployed at closing.

TABLE 1

*Background Characteristics of Mentally Ill Adolescents**

		N	%	Mean
Gender:	Male	41	70	
	Female	18	30	
Minority status:	White	37	63	
	Nonwhite	22	37	
Ever employed:	Yes	45	76	
	No	14	24	
Primary diagnosis:	Schizophrenia	27	46	
	Other	32	54	
Physically disabled:	Yes	14	24	
	No	45	76	
Age at intake (in years)				19.2
Years of education				11.4
Psychiatric hospitalizations				2.1
Weeks hospitalized in lifetime				28.1
Proportion of lifetime hospitalized (weeks hospitalized/weeks lifetime)				2.9
Weeks at longest job ever held				41.4
Days until first employment in program				213.8
Siblings				2.5
Older siblings				1.4
Younger siblings:				1.1

*N = 59

The 59 young adults who comprise this sample were selected on the basis of having *ended* at least one job before January 31, 1989. This date was chosen so that the authors would have a 3-month time period (until April 30, 1989) to observe whether or not the young adults were able to obtain a subsequent job.

As shown in Table 1, 70% of the sample are male, and 30% are female; 63% are white, and 37% are members of other racial groups (Black, Hispanic, or Asian). When entering the Thresholds program, the ages of these young people ranged from 17 to 22, with an average age of 19.2 years. At the time of intake, these youths had completed an average of 11.4 years of education. A primary diagnosis of schizophrenia was given to 46% of the young adults, while the remaining 54% had diagnoses of affective disorders (e.g., manic-

TABLE 2

Movement Between First and Second Placements

	N	%
Forward movement:		
Group to individual placement	7	12
Individual placement to own job	0	0
Group placement to own job	2	3
Total	9	15
Lateral movement:		
Group to group placement	32	54
Individual to individual placement	0	0
Independent job to independent job	0	0
Total	32	54
Backward movement:		
Independent job to individual placement	0	0
Independent job to group placement	0	0
Independent job to unemployed	2	3
Individual placement to group placement	1	2
Individual placement to unemployed	0	0
Group placement to unemployed	15	26
Total	18	31
Grand Total	59	100

depression), psychotic depression, and personality disorders (e.g., borderline). On average, these youths had been hospitalized twice, having spent a mean of 28 weeks of their lives (almost 3% of their lifetimes) in psychiatric institutions. Of the young adults 24% suffered from a chronic medical condition such as epilepsy, heart disease, or hearing impairment in addition to their emotional/behavioral problems, and 76% had worked at some point in their lives before entering the program, holding their longest jobs for an average of 41 weeks. Once in the Thresholds program, it took the average young adult 214 days to begin her/his first placement. The mean number of siblings in the families of these youths was two, one older and one younger than the respondent.

Instruments.

Data were compiled for every job held while at Thresholds for each young person in the sample. This information was obtained from the monthly employment reports completed by the young adult vocational caseworker. These reports included information on the type of placement obtained (group, individual, or independent job), the starting and termination dates for each placement, and the reasons for all job terminations. These employment data were coded, entered into the computer, and verified by a research assistant. Background information was gathered from each Thresholds youth during a

TABLE 3

Descriptive Statistics for the Difference in Length of Youths' First and Second Jobs

	N	%	Mean	Average
Frequency Distribution for Job Length Differences				
Job length difference (in days):				
-200 to -300	2	5		
-199 to -100	7	17		
- 99 to - 1	15	37		
0 to 99	14	35		
100 to 199	2	5		
200 to 300	2	1		
Total	41	100		
Job Tenure				
Held first job longer than second job	24	58		
Held second job longer than first job	17	42		
Length of first job (days)			121.8	
Length of second job (days)			99.9	
Difference between first & second jobs (days)				-21.9

lengthy assessment interview at the time of intake. Additional interview material collected from a subsample of these youths following the termination of each job placement was utilized for qualitative analysis.

Variables Employed in the Analysis.

Two dependent measures were used in the analysis: the direction of movement following the first job, and the degree to which the second job (if any) was held longer than the first. The former dependent variable was a three-level variable coded 2 if the youth displayed forward movement. Forward movement was defined as transitioning from a group to an individual placement, or from an individual placement to an independent job. A score of 1 was assigned if the youth made a lateral move between the first and second position (e.g., going from one group placement to another). A score of 0 was coded for backward movement. Backward movement was operationalized as moving from an independent job to any other type of position, moving from an individual placement to a group placement, or experiencing a period of at least 3 months of unemployment after leaving a job. The distribution of this variable is presented in Table 2.

The majority (54%) of the youths held second jobs that were of equal levels of autonomy to their first positions. As shown in Table 2, all of the cases of lateral movement involved going from one group placement to another. Of the sample 15% moved to jobs of greater autonomy. Most of the cases of

forward movement were from a group placement to an individual placement (12%), while two youths (3%) went from group placements to their own jobs. Eighteen, (31)% of the youths displayed backward movement. One youth went from an individual to a group placement, and the remaining 17 (29%) were unemployed for at least 3 months following their first placement. Thus, most of the youths did not move forward following the termination of their first paid position; instead, 32 (54%) made lateral moves to jobs of equal autonomy and responsibility.

The second dependent variable was created by subtracting the length of the first job (measured in days) from the length of the second job. The frequency distribution for this variable is presented in the top half of Table 3 with descriptive statistics presented in the bottom half of the table. Over half (58%) of the youths held their second jobs for a shorter period than their first jobs, while the remaining 42% showed longer second job tenure. On average, the young adults held their first jobs for 122 days, and their second jobs for 100 days. The average difference between the lengths of the youths' first and second jobs was -22 days.

The independent variables were operationalized in the following manner. As presented in the literature review, these variables may be divided into four types: demographic factors, illness features, work experiences, and personal resources. The demographic variables examined in this study were: gender (coded 1 for males and 2 for females); minority status, measured as white (coded 0) or nonwhite (coded 1); years of education before intake; and age in years at time of entry into the program.

The illness variables included primary diagnosis, number of hospitalizations, number of weeks hospitalized, and proportion of lifetime hospitalized. Primary diagnosis was coded as a dichotomous variable with a value of 1 if the youth was diagnosed with schizophrenia and 0 otherwise. The variable measuring number of weeks hospitalized was based on the youths' and families' reports at intake regarding how much time the youngster had spent in a psychiatric hospital during his or her lifetime, and then this was verified through actual hospital records of admission and discharge. Number of hospitalizations was also based on this reporting and verification procedure. Proportion of lifetime hospitalized was computed by dividing the youth's age at intake (measured in weeks) by the number of week spent in psychiatric hospitals, and multiplying that number by 100 to give percentage of lifetime institutionalized.

Two of the three employment history variables addressed the youths' work histories prior to starting the Thresholds program. One was a dichotomous variable regarding whether or not the individual was ever employed prior to intake (coded 0 for never worked, 1 for having worked). The second variable was the length of the longest job ever held, measured in weeks. The third employment variable was the number of days between intake and beginning a paid placement arranged for the youth by Thresholds.

The fourth type of independent variable consisted of personal resources and included factors thought to influence the youth's potential for successful employment. The number of older siblings, the number of younger siblings,

and the total number of brothers and sisters reported in the respondent's family were all examined. In addition, the analysis included an item assessing physical disability, which was a dichotomous variable coded 1 if the youth reported the presence of a physical problem which required medication, or one which limited work ability, or one that was a chronic medical condition, and as 0 otherwise. Finally, a measure of social leisure time activities was constructed using scores on the Katz and Lyerly (1969) Leisure Time Activities Scale. Selected from this scale were only those items that require some sort of social interaction to be completed, such as entertaining friends or visiting family. The actual number of social activities the client reported engaging in over the past month was used for this variable.

Analysis.

In order to explore the distribution of all the variables, first, frequencies were computed and descriptive statistics were obtained for all measures utilized in the analysis. Next, zero-order Pearsonian correlations of all the independent variables were computed with the two dependent measures: movement to a second job with a greater, equal, or lesser level of autonomy; and difference in job tenure between the first and second jobs. In addition, qualitative interview material from a sub-sample of these young adults following the terminations of their jobs was analyzed. These interviews were conducted with all program participants during a 3-year period as part of a larger study on job ending. For the present study the authors have analyzed 55 job termination interviews conducted with 32 of the youths in the sample. The following section presents the results of these analyses.

RESULTS

Reasons for Job Terminations.

Table 4 presents the reasons reported for the terminations of the youth's first and second jobs. As shown in the first set of columns, the most frequent reason given for ending the first positions was quitting, which occurred in 29% of the first job endings. This was followed in frequency by assuming another agency-sponsored placement, which accounted for just under a quarter (24%) of the terminations. A fifth of the young adults were fired (20%) either by the employer or by the agency. Eight youths (14%) lost their jobs because the agency ended the placement agreement with the employer, and five youths (8%) experienced a layoff. One youth went on to an independent job and two others were granted temporary leaves because they were rehospitalized.

The second set of columns in Table 4 presents the reasons for second job endings among the same youths. Once again, the most frequent reasons given was that the youth quit the position, which occurred in 27% of the cases. Almost a fifth (19%) of the youths lost their positions by being fired. Roughly equal proportions assumed another agency-sponsored position (17%), were laid off (15%), or lost jobs because placement arrangements were ended (15%). Finally, two youths took temporary leaves, and one was graduated from the program while employed at his own job.

TABLE 4

Reasons for Job Endings of Youth's First and Second Positions

Termination Reason	1st Ending N	1st Ending %	2nd Ending N	2nd Ending %
Fired	12	20	8	19
Quit	17	29	11	27
Leave of absence	2	3	2	5
Placement ended	8	14	6	15
Layoff	5	8	6	15
Assumed another placement	14	24	7	17
Assumed an independent job	1	2	0	—
Closed working	0	—	1	2
Totals	59	100	41	100

Comparison of these two distributions reveals several things. First, the proportions of youths who ended jobs because of quits and firings stayed relatively stable over the two ending events (49% of all first job endings and 46% of all second job endings). Second, as the results indicate, it frequently happens that the agency or employer ends a placement arrangement or an employee is laid off (22% of first job endings and 30% of second job endings). These terminations confound the picture somewhat, because they are typically not due to the youth's performance but instead reflect economic, seasonal, and market fluctuations.

Finally, the proportion of young adults whose reason for leaving the first job was obtaining another job, or leaving the program while still employed, declined from 26% of first job endings to 19% of second job endings. This decrease might indicate that, over time, fewer youths were leaving jobs for positive reasons. To see if this were the case, the authors identified 27 (66%) individuals who obtained a third job within 3 months of terminating their second positions. (Of the young adults who had left their second jobs 14 (34%) did not obtain a third job within 3 months.) Of the 25 young adults who had left their third jobs at the time of the analysis, 52% did so to assume another job (n=12) or left the program while still employed (n=1). These findings demonstrate that nearly half (46%) of the disabled youths in this program were able to hold three jobs with less than 3 months of unemployment between each job; moreover, by the third position, these adolescents were more likely to leave a job for positive than for negative reasons.

Correlates of Transitions: Increasing Autonomy and Job Tenure.

The two dependent variables chosen for this analysis reflect two aspects of vocational transitioning. The first is a transition whereby the worker assumes a subsequent job with increasing autonomy and independence. In the current study, this was assessed as movement to a work setting in which there was:

TABLE 5

Correlations Between Movement toward Autonomy and Independent Variables

Independent Variables	Correlation Coefficient and Significance (N=59)
Client demographic features:	
Gender	.15
Minority Status	.12
No. years of education	.37***
Age at program intake	-.00
Illness characteristics:	
Schizophrenia diagnosis	-.20*
No. of hospitalizations	-.25**
No. of weeks hospitalized	-.27**
Proportion of lifetime hospitalized	-.27**
Previous work history:	
Employment prior to intake	-.19*
Length of longest job	.18
No. of days before 1st placement	-.19*
Personal and social resources:	
Total No. of siblings	-.14
No. of older siblings	-.06
No. of younger siblings	-.14
Physical impairment	-.23**
No. of social leisure time activities	-.02

*$p < .10$, ** $p < .05$, *** $p < .01$

(a) supervision directly from the employer's staff rather than agency-sponsored supervision; (b) the absence of other psychiatrically disabled youths at the work setting; and (c) no agency sponsorship of the job.

Table 5 presents the correlates of increasing job autonomy for the four types of factors discussed in the literature review. Regarding demographic features of these young workers, forward movement to a more autonomous second job was significantly more likely for those with a higher number of years of education ($p < .01$). None of the other demographic characteristics examined here—gender, minority status, or age at intake—ere significantly related to movement between jobs.

Regarding illness characteristics, coefficients indicated significant associations for diagnosis of schizophrenia ($p < .10$) and the three measures of prior treatment: number of psychiatric admissions prior to intake ($p < .05$), number of weeks hospitalized ($p < .05$), and proportion of lifetime hospitalized ($p < .05$). The higher each of the latter three measures the lesser

the likelihood of movement to greater vocational autonomy and independence. The coefficient for diagnosis indicated that those with a DSM III diagnosis other than schizophrenia were more likely to exhibit forward movement vocationally.

Concerning prior work history, two of the variables indicated significant effects ($p < .10$): presence of any employment history prior to intake, and number of days in program before first paid job. Surprisingly, those who had never worked before entering the program were more likely to obtain second jobs at higher levels of autonomy and independence. Also, the individuals who were the quickest to begin their first agency-sponsored placements were more likely to make vocational transitions to greater independence.

Regarding social and personal resources, those without a physical disability in addition to their mental illness were also more likely to transition to a more independent second position ($p < .05$). However, none of the other personal and social resource variables was significant, indicating that availability of siblings and participation in social leisure time activities were not predictors of successful vocational transitioning.

TABLE 6

Correlations Between Job Length Difference and Independent Variables

Independent Variables	Correlation Coefficient and Significance (N=41)
Client demographic features:	
Gender	.01
Minority Status	.20*
No. years of education	-.00
Age at program intake	-.06
Illness characteristics:	
Schizophrenia diagnosis	-.25**
No. of hospitalizations	-.19
No. of weeks hospitalized	-.20
Proportion of lifetime hospitalized	-.19
Previous work history:	
Employment prior to intake	.05
Length of longest job	-.14
No. of days before 1st placement	-.11
Personal and social resources:	
Total No. of siblings	.02
No. of older siblings	-.12
No. of younger siblings	-.12
Physical impairment	-.14
No. of social leisure time activities	.13

*$p < .10$, ** $p < .05$, ***

The second outcome used to operationalize vocational transitioning was based on job tenure, the number of days each youth held her/his first and second positions. A difference score was created for each youth by subtracting the length of the first job from the length of the second job and used as the dependent variable. Table 6 presents the correlates between this outcome variable—degree to which the second job was held longer than the first—and the predictor variables described earlier. Here, only minority status ($p < .10$), and diagnosis ($p < .05$) were related to job tenure difference: those youth who were minorities or had diagnoses other than schizophrenia had significantly longer second jobs than their counterparts.

In order to test the robustness of findings, partial correlation coefficients were computed for all relationships significant at a probability of $p < .10$, controlling individually for each of the independent variables. The results indicated that all significant relationships were not substantially affected by controlling for the other variables.

Youths' Reactions to Job Leaving.

Job termination interviews (55) were conducted with a selected subsample of the youths (n=32) who are included in the sample described above. (Some people were interviewed more than once for different job endings.) In these interviews the youths were asked to describe how they felt about leaving their positions. Analysis of this qualitative information revealed some interesting aspects of these youths' attitudes toward job leaving and toward employment in general.

Not surprisingly, many of the young adults quit their jobs voluntarily because they really did not like their placements. Youths often started off in group placements which involved repetitive, low paying, and low status work. This was frustrating fro many of the adolescents, and they quit because of boredom or because they felt they were not paid enough. One youth described his factory job as "boring, boring, boring" and said he did not miss the job at all. Another young man explained, "The pay wasn't good enough. I worked hard and it wasn't worth it."

On the other hand, some youths realized on their first placement that they were really not ready to work. In such cases, a common reaction to quitting or being fired from a job was a sense of relief at leaving positions they felt were too demanding or stressful for them. For some, this sense of relief seemed to overshadow the negative aspects of losing the position. A teenage boy stated, "I'm a little relieved because I don't have the strain of getting up in the morning." As one girl explained:

> (I feel) Great! I'm angry about the way it turned out. That it was too hard for me and I tried so hard. No matter how hard I tried it still didn't work out because it was too much for me.

Mixed with the relief in this girl's comments was an obvious feeling of discouragement, and this reaction was shared by others as well. One example was a young man who had been moved up from a group placement to an individual placement from which he was fired for poor attendance. As he related, "(It feels) weird. I've been doing good all this time and it just

disappeared. (It's a) set back." The sense of discouragement seemed to stem from the frustration these young adults experienced in trying to deal with the symptoms of an illness they were unable to control.

The adolescents in our study were more likely to express feelings of relief when they had quit a job or been fired. When jobs ended for reasons we defined as neutral, such as when an employer or the agency terminated a placement arrangement or when layoffs occurred, the youths more often felt hurt and angry. Reactions to this type of job termination included the following:

> I was real upset and angry at first. I felt really bad that they were taking us off the job. I was angry and hurt because I tried really hard and was liking it.
>
> (I feel) bad because we were all doing good and wanted to continue but couldn't.

Cases in which the employer terminated the placement relationship with Thresholds were often confusing for the young adults who not only felt upset but were confused about why the placement was eliminated. One girl said:

> Sometimes I feel the placement ended because of me. I put it in my mind that it was my fault the job closed even though people tell me it's not. Thresholds had been there so long, 8 or 9 years, and then I got there and it went down.

A very common reaction we heard from these young adults was that they missed work for the sake of work. Many found real enjoyment in the act of doing a job. It provided a structure for their days, a natural social setting, and a source of income, all things desired by many of our young adult clients. One boy summed up all of these feelings in his comments: "I miss it. I'm bored. It gave me something to do. It gave me money."

While a number of other young adults mentioned that they missed the money they got from working, more often the adolescents missed the social aspects of the job. As one participant put it, "I miss it. That's it. I miss working with the people and just working period." The social aspects of work were particularly important to youths who had been at group placements where there were other psychiatrically disabled coworkers at the workplace. One young woman characterized her reaction upon moving from a group to an individual placement:

> I miss that . . . the group . . . (going to work in) the van, the goofing around, peer support, job coach, some security.

While this youngster was pleased to be advancing to a more autonomous job, she was clearly ambivalent about leaving the supportive work environment provided by the group placement. Others seemed to find it easier to leave because they viewed the group placement as a temporary position. Thus, they had always anticipated moving on to something better, and had never thought of their jobs as anything but temporary. One young man explained:

> It's ok. I have another job now. I knew it wasn't going to last forever because it was a group placement. If it were an individual

placement I would have hated leaving.

This youth's comments demonstrated the moratorium stage of adolescent work behavior described by Shapiro (1983). This stage is characterized by a short-term orientation toward employment and frequent job changes, reinforced by a transitioning model that emphasizes gradual movement toward more challenging jobs.

From this perspective, adolescents may see the primary function of a job as providing them with the experience necessary to move on to the next position. This interpretation was substantiated by the comments of one young adult who moved from a janitorial placement to his own job in the mailroom of a large company. He described his progress in the following way:

> I feel I've made a good move. (My previous job) was a good start. I learned discipline. The boss there was good in getting me to do the things I needed to do. (He) helped me to (learn to) concentrate. I feel I'm gaining more independence in (my) work situation now.

DISCUSSION

The transitional employment model assumes advancement from job placements which provide a high level of support from staff and other psychiatrically disabled coworkers (group placements) to jobs which require greater autonomy on the part of the employee (individual placements and independent jobs). Finding by the present study show that young adults in the program tend to use more than one group placement (making lateral transitions) before moving on to individual placements on their own jobs. There are a number of possible explanations for the occurrence of this employment pattern in this population of youth with severe mental illness.

One explanation may be that all group placements are not the same. Group placements have been defined in the vocational transitioning literature as jobs with a staff member (the job coach) at the work site and a group of peers working together. However, this definition does not account for the different demands of each placement. For example, Thresholds has one group placement in a factory at which the job tasks are simple and repetitive and do not require interaction with the public. The employees are paid on a piece-rate basis so that they may work at their own pace. Another group placement is located in a supermarket at which the young adults stock shelves, bag groceries, and carry purchases to customers' cars. This job requires continual interaction with customers and the ability to carry out a variety of tasks at a rapid pace.

The range of placements offered by Thresholds makes it possible to find appropriate group placements for young adults at varying levels of functioning and allows forward or backward movement to occur within the group placement stage. However, this forward and backward movement is not reflected in this present analysis because all group placements are considered together and movement between group placements is defined as lateral. Future analyses should attempt to account for variation int he nature and

complexity of job tasks and degree of interaction with nonhandicapped individuals at different group placements.

Another feature of the group placement, which may explain why the young adults tend to stay at this level longer than predicted by the transitional employment model, is the social structure of this type of placement. As reflected in the comments of the young adults, the social aspects of group placements are very important to these youths, who value both the support provided by staff and the camaraderie of the other agency clients employed at the work site. Therefore, when a young adult is transitioning from one job to another, s/he may express a preference for a group placement over an individual placement in order to maintain this level of supportiveness in the work environment.

In this sample the young adults held their first jobs longer than their second jobs. This finding is contrary to the notion that staying on a job for a longer time period is an indication of vocational achievement, and that one's job tenure should increase with each successive employment experience. This clearly is not the case with either this sample of behaviorally disordered/emotionally disturbed youth, or for nondisabled adolescents in the moratorium stage of vocational development (Osterman, 1980). Adolescent work behavior is characterized by high job turnover, and this sample seems to fit this norm. It is therefore concluded that the job tenure variable employed in the analyses was not an adequate measure of vocational achievement.

The finding that quitting is the most frequent reasons for leaving both first and second job placements lends further support to the impression that the sample's job behavior is similar to that of nondisabled adolescents. The main difference may be the young adults' reasons for quitting their jobs. As their comments from the job termination interviews indicate, many are bored by their jobs, and this is certainly typical for adolescents in general. However, other youths experience great anxiety and exacerbations of their psychiatric symptoms because of the stress of working. Quitting is a relief fro this latter group of young adults.

The young adults' comments on job termination interviews demonstrate that the reason for ending a job makes a big difference in the way the individual responds to the loss. The most important variable in this regard seems to be whether the young adult feels that the job ended for reasons that were within, or outside of her/his control. When an employer terminates a placement or when layoffs occur, the young adults are more likely to feel angry and frustrated than when jobs end for other reasons. The youths' reactions indicate that many have a strong desire to work and that they obtain important benefits from doing so. Work provides a sense of identity, helps to bolster their self-esteem, makes them feel productive and more self-sufficient, helps to promote future independence, and aids in the transition from adolescence to adulthood.

Transitioning between Jobs: The Role of Autonomy and Job Tenure

In order to determine what factors might influence movement to jobs of greater, equal, or lesser autonomy, and the relative length of youths' first

and second jobs, four categories of independent variables were examined: client demographic features, illness characteristics, previous work history, and personal and social resources.

Demographic features. Of the demographic features examined, it was found that the number of years of education completed by the adolescents was the only variable significantly related to movement to jobs of greater autonomy. This finding is not surprising, given the literature discussed earlier regarding the problems faced by young workers with incomplete schooling. Shapiro (1983), for one, found that education was significantly related to whether or not youths who quit their jobs went on to better positions. It is a surprise, however, that gender and minority status are not also significant factors in this analysis, and that minority group status is significantly related to the job length difference with minorities holding their second jobs longer than nonminorities. It may be that since the young adults in the sample are involved in a program which places them in jobs, the agency can act as a buffer between the individual and the employer, thereby reducing the possibility of sexual or racial discrimination at the work place. These variables may become significant later in the young adults' lives when they move into more competitive employment situations.

Illness characteristics. It was found that all of the illness characteristics examined in this analysis are significantly related to movement between jobs. Those individuals who appear to be sickest (e.g., more hospitalizations, more time spent in the hospital) or who are diagnosed with schizophrenia are less likely to move on to jobs of greater autonomy than their healthier counterparts and youths with nonschizophrenic diagnoses. In addition, young adults with diagnoses other than schizophrenia hold their second jobs for a significantly longer period of time than youth with diagnoses of schizophrenia. This confirms the studies cited earlier which show that broad diagnostic characterizations had some predictive validity in determining vocational ability among those with a psychiatric disability (Grusky et al., 1985; Wilson, Berry, & Miskimins, 1969).

The findings of this study contradict the conclusion reached by Anthony and Jansen (1984) that illness characteristics do not predict future work performance. However, the studies on which this conclusion was based concerned adults with mental illness, and it may be that the vocational experiences of adolescents are more influenced by these illness-related variables. It is probable that those individuals who have spent more time in psychiatric hospitals have spent less time gaining work experience, and would therefore be at a disadvantage when compared with their nondisabled peers and with adults.

Previous work history. A consistent finding in the literature has been that previous work experiences predict future vocational achievement for persons with severe mental illness. The present analyses reveal mixed support for this finding. First, no relationship was found between prior employment features and job length. Second, the young adults who had never worked before entering Thresholds are more likely to move to second jobs with more

independence than their peers with prior work experience. One possible explanation for this unexpected result is that the adolescents who had worked before coming to Thresholds had negative employment experiences which discouraged them from trying more demanding jobs.

To test this hypothesis, the authors examined the reasons why youths reported leaving their last job before they entered Thresholds. This data was available for 42 of the young adults included in the sample. The reasons for leaving were coded as either negative (quit or fired), or neutral (laid off). It was observed that those youths who had left a job for negative reasons (n=26) were most likely to make backward (31%) or lateral (65%) moves between their first and second Thresholds placements. In fact, only one of the youths who had terminated for negative reasons moved forward at Thresholds from a group placement to an independent job. In contrast, those who had left a previous job for a neutral reason showed no differences in whether they moved forward (31%), laterally (31%), or backward (38%). This finding lends support to the explanation that negative job experiences may hinder future work performance.

It was found that youths who took longer to achieve their first placements were less likely to move on to second jobs with greater autonomy. This finding is inherent in the nature of the transitional employment model which dictates that participants remain on the inhouse crews until they exhibit the skills to move on to their first group placement. As such, this finding reflects the progress of the young adults who are the most ready to work and can move quickly from kitchen crew to group placement, and then on to a second job with more independence.

Personal and social resources. The researchers hypothesized that young adults' vocational achievement would be influenced by the presence of siblings in their families. However, the results show no correlation between the number of older and younger siblings and the adolescents' job performance. Since many of the young adults live away from the family home while they are at Thresholds, siblings may not serve as important role models for these youths. Instead, one's peers in the Young Adult Program may be the more relevant reference group during this time.

The number of social leisure time activities also was not related to vocational performance in the population, contradicting previous research. This may be due to the fact that the young adults' social lives are largely structured around agency activities, especially for those who live in Thresholds housing. While a person may have good interpersonal social skills, this is not necessarily reflected in responses on the measure of social and leisure time activities. Therefore, youths' scores on this measure may not reflect an accurate picture of the relationship between social skills and success on the job.

Physical impairment is the one personal resource variable which shows a significant negative relationship with moving to a job of greater autonomy. Those individuals who have physical impairment in addition to their mental illness are doubly handicapped and seem to have more difficulty moving through the transitional employment model. This finding corresponds to the

results of previous research (Grusky et al., 1985), and deserves greater attention given the high level of comorbidity (i.e., the presence of more than one disability) among persons with severe mental illness (McFarlane, 1988).

To summarize, after the first job placement the majority of youths in this study continued to work at jobs of equal or greater autonomy and responsibility. Although the small sample size limits the ability to generalize these results to larger populations, the analyses do reveal some ways in which young adults with mental illness are both similar to and different from their nonhandicapped counterparts. In addition, young disabled workers may not always view job transitions in the same light as older workers, and aspects of the labor market and of the vocational placement model may create job changes beyond a particular youth's control. Hopefully, future research will shed greater light on the specific functioning of this model, as well as its efficacy for serving youths with severe behavioral disorders.

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Judith A. Cook, Director, Thresholds Research Institute, 561 West Dinersey Parkway, Suite 210-A, Chicago, Illinois 60614.

Mardi L. Solomon, Research Assistant, Thresholds Research Institute, 561 West Dinersey Parkway, Suite 210-A, Chicago, Illinois 60614.

Lynne Owens Mock, Research Assistant, Thresholds Research Institute, 561 West Dinersey Parkway, Suite 210-A, Chicago, Illinois 60614.

Alternative Schools: Alternative Programs or Just Alternative Environments?

Mary W. Schmidt, Nancy E. Harriman, Johann Bleicher, and Frank McCabe

Adolescents, at risk because of the effects of poverty, family disorganization, delinquency, teenage parenting, as well as educational handicaps and few employment opportunities (Sarri, 1982), often receive educational services in alternative school environments. Alternative schools have been developed to promote education and social development for students unsuccessful in traditional educational structures (Gold, 1978), and have been used to provide greater structure and appropriate instructional programs (Schnorr, D'Alonzo, & Sabatino, 1983). They should offer programming that intensively addresses individualized instruction that meets student needs and interests, a clear system of rewards, low student-teacher ratios, and a climate of respect with fair, consistent disciplinary procedures (Sarri, 1982).

Often the curriculum of alternative schools is dependent on the philosophy and goals of the school and the type of population it serves (Algozzine, Schmid, & Mercer, 1981). Many students in alternative placements have dropped out or are ready to drop out of school, have extensive behavior problems, and may be truant or adjudicated youth. This type of transitory school population often makes the goal of the alternative school one of enforcing attendance rules and meeting minimum graduation requirements with little or no attention focused on the problems that have affected the achievement and adjustment of the adolescents.

When adolescents with behavioral disorders are into successful in the regular school setting, alternative schools offer an alternative educational setting. Hopefully, alternative educational programming with student involvement in the decision-making process is available in the alternative setting (Sabatino, 1982). When evaluating the effectiveness of these alternative settings and programs the "Alternative" aspect of their existence must e considered. Evaluation seldom addresses the context and organization of the curriculum nor its implementation and impact on social-emotional factors. However, in order to consider the individual-specific needs of students and the varying goals of different schools, evaluation of alternative schools must include the context as well as the content of curriculum. One evaluation model that addresses these concerns is the CIPP model developed by Daniel Stufflebeam (1971).

THE CIPP EVALUATION MODEL

Until the early 1970s traditional models of evaluation were oriented toward objectives, testing, and experimental design. These models identified behavioral objectives, designed interventions to achieve these objectives, and then measured performance. The performance measurements were then compared to the objectives in order to assess the effectiveness of these programs. Stufflebeam (1974) redefined evaluation as "the process of delineating, obtaining, and providing useful information for judging decision alternatives" (p. 129). The CIPP Model, developed by Stufflebeam (1971) focuses on four types of evaluation—context, input, process, and product. Each area of evaluation is concerned with delineating, obtaining, and providing certain types of information that will be used to make decisions. Context evaluation is involved in identifying needs and diagnosing underlying problems and causes by defining the school or class environment, identifying the target population, and identifying objectives addressing those needs. Input evaluation identifies and assesses competing strategies and designs such as school resources, physical plant, budget staff, materials, structure of curriculum, and scheduling. Process evaluation assesses the extent to which the selected designs are carried out and monitors the processes and strategies used implement them. Product evaluation describes and judges the outcomes (Stufflebeam, 1974b). The strength of this model can be shown by using a matrix with two dimensions: end/means and intended/actual (see Figure 1).

	ENDS	MEANS
INTENDED	CONTEXT EVALUATION Planning Decisons	INPUT EVALUATION Structuring Decisions
ACTUAL	PRODUCT EVALUATION Recycling Decisions	PROCESS EVALUATION Implementing Decisions

Figure 1. *The CIPP evaluation model (Stufflebeam, 1974).*

One of the strengths of the CIPP model is that it also can be used to describe fdcour types of programmatic decisions: planning, structuring, implementing, and recycling. Planning decisions include establishing goals, objectives, and priorities. Structuring decision specify what processes and procedural designs should be implemented, while implementing decisions operationalize processes and procedures. Recycling decisions result in the continuation, modification, and termination of projects. These decisions help to organize and apply information collected during the CIPP evaluation process. Figure 2 shows these evaluation and decision types within ends/means and intended/actual dimensions.

	ENDS	MEANS
INTENDED	Context Evaluation identifies unmet needs, diagnoses underlying problems and causes serves Planning Decisions determine GOALS OBJECTIVES	Input Evaluation assesses merits of competing designs/means for achieving ends serves Structuring Decisions specify PROCESSES PROCEDURES
ACTUAL	Product Evaluation describes/judges outcomes intended and incidental - compare actual/intended ends serves Recycling Decisions result in CONTINUATION MODIFICATION	Process Evaluation assesses extent designs carried out - nomitor processes to keep them close to intended means serves Implementing Decisions operationalize PROCESSES PROCEDURES

Figure 2. *The CIPP model showing evaluation and decision types (Stufflebeam, 1974).*

The CIPP model was chosen because of its ability to include and consider specific needs of students and the varying goals of different alternative schools. It provided a framework to make programmatic decisions based on specific information gathered from a variety of sources. The purpose of this study was to develop procedures based on the CIPP model to conduct a decision-oriented evaluation.

METHODOLOGY

The CIPP model was applied in this study by articulating questions for each type of evaluation (context, input, process, product) and then determining the best means of collecting data to answer each question. Data were collected through interviews, class visitation, and reviews of pupil personnel records. The intent of the evaluators was to encourage respondents to provide any data of each type that they felt was important. Thus, very few forced choice questions were included in interviews and probing was encouraged. Likewise, class visitations were documented in anecdotal style on an open-ended record form rather than using a standardized rating procedure.

TYPE OF EVALUATION

Variable	Source		
CONTEXT	Administrator	Teacher	Student
Characteristics of students			
Needs of students			
Characteristics of program			
Goals/philosophy of program			
INPUT			
Resources			
Services			
Materials/curriculum			
Facilities			
PROCESS			
Instruction			
Behavioral interventions			
Staff development			
Communications			
PRODUCT			
Short-term measures of progress			
Long-term measures of progress			
Academic measures of progress			
Social measures of progress			

Figure 3. *Grid for analysis of case study data using the CIPP model.*

The evaluators then reviewed all the raw data to identify patterns or trends in responses related to each type of evaluation (content, input, process, or product). Variables with each category were identified from the original questions and used as an organizational structure within which to tabulate related data from multiple sources (see Figure 3). Because the categories could not be assumed to be mutually exclusive, all data were successively examined for each type of evaluation. A separate grid was prepared for each program being evaluated. Data pertinent to each variable were recorded under the appropriate source and coded as either Intended (I) or Actual (A) means/ends (See Figure 4). Intended means/ends included articulated priorities and goal statements; actual means/ends included policies, procedures, and materials that were observed or stated to have been occurring. The evaluators used the information on these grids to dra v conclusions about characteristics of each programs as well as to look for similarities and differences between programs.

Category: CONTEXT

Variable: GOALS

Data Source: STRUCTURED INTERVIEWS

Administrators	Teachers	Students
I meet IEP goals	**A** cooperate more	**A** control anger
I eliminate dysfunctional behaviors	**A** work through at least one problem area	**A** spelling
	A improve writing skill	**I** be able to go back to public schools
	A show academic growth	**A** general math, biology, history, life science
	A discover reading can be fun	**A** learn how to make friends
		I go back to school and graduate
		I control temper

Data Source: PROGRAM DESCRIPTION

I "Help students achieve positive self-discipline and socially acceptable behaviors."

I "Educational opportunity based on IEP from sending school."

I "Cognition on the part of the child he is soley responsible for his actions and their impact on him and his environment."

Figure 4. *Excerpts from a grid to analyze a context variable, goals (***I** *= Intended ends;* **A** *= Actual ends).*

Interview Protocols

Interview questions were developed to elicit descriptive information relative to each evaluation category from multiple sources (teachers, administrators,

and students). The wording and content of each set of questions was tailored specifically for the intended source. For example, students were asked, "What do you hope to learn from this program?" and "What do you hope to do after you leave this program?" But Teachers were asked, "What are the short and long-term goals for the students in this program?" Related questions from different evaluation categories were grouped together to encourage expansion and clarification of ideas. For example, the contextual question, "Is your program based on a philosophical model?" Was followed by the process question, "How is that philosophy communicated to students?"

Responses to interview questions were either taped or briefly noted in writing during the interview session for further analysis. Questions were coded fro type of evaluation on the interview transcript form.

Class Visitations

Class visitations were carried out in conjunction with teacher and student interviews. The purpose of the class visitations was to verify and clarify information provided by students and teachers in interviews and to supplement other data sources. The visitations provided the evaluators one more opportunity to identify critical aspects of the classroom environment that had not been addressed directly by interview questions or record reviews. Most importantly, evaluators had an opportunity to observe directly interactions among students and teachers.

Target Programs

Program A is a public school program serving approximately 100 students in grades 7-12 in an alternative school setting. The student body includes those who are chronically truant, pregnant, in transition (returning from outside placements), and students classified as exceptional including behaviorally handicapped students. Young students with severe behavior problems are served in a self-contained program within the school. Although housed in a different facility than other secondary programs, students have limited access to regular programs, services, and activities (such as vocational education).

The school's philosophy has always been one of staff involvement and support in every aspect of the student's life. The school staff also works cooperatively with families and a variety of community agencies to help students achieve individual goals for vocational and academic development and for personal growth.

In addition to course work, the school offers services for expectant and new parents. Homebound services and counseling, as well as a day care center located at the school, provide support to pregnant and parenting students. Project Parenting, a joint effort between the school, university, and other community agencies, also operates to decrease the rate of child abuse/neglect within the homes of young adolescents who are enrolled in the alternative school or regular school programs through out the community (Bleicher, 1988).

Program B is a private residential alternative program for students 11-17 years of age, located in a rural setting. Students are referred to the school

by public school districts, private and social service agencies, and child/adolescent psychiatric hospitals. The students may be characterized as "having problems with positive peer interactions, low regard for sel, inability to function in a school setting, and may demonstrate mild to moderate degrees of acting out behavior" (McCabe, 1987). Their specific learning disabilities and/or behavioral disorders adversely affect their ability to learn in the traditional public school environment. Students' length of stay in the program varies from short-term (1 to 2 years) to long-term placement periods (4 or more years). Approximately 36 students are currently enrolled.

The school's philosophy is based upon a social learning view of growth and development. Attention is devoted to the educational, emotional, and health needs of students. Experiential education (i.e. learning by doing) is also an integral aspect.

The school is operated by a not-for-profit foundation and supported largely through tuition fee and contracted service grants. Instruction is provided in ungraded classrooms staffed by special education teachers and teacher aides. A variety of support services are provided in conjunction with the school and residential program. All students work to maintain the grounds, their residences, and the school. Vocational agriculture is a central component of the program.

RESULTS AND DISCUSSION

After analyzing the data, the evaluators identified several distinctive components of the two alternative programs. Those components will be described within the framework of the CIPP model. However, one problem encountered by the evaluators in applying the model should be noted. Sorting the data related to context from those related to process was a challenge because respondees tended to link the two in responses to interview questions. This tendency suggests that the administrators and teachers in the programs perceive a definite relationship between the goals of the programs and the processes utilized to accomplish those goals. Is this tendency unique to alternative programs? Or, is this link alone adequate to ensure a true alternative program? On the contrary, the CIPP model is based on the assumption that such a link will exist in any high-quality program. The importance of the findings of the two case studies reported here lies in the nature of the goals and the implications of those goals for evaluating learning environments designed to meet the needs of the unique population served by alternative programs.

Context

One characteristic common to both alternative programs is the predominance of the social/behavioral goals component. When responding to interview questions related to the goals of the program, students, teachers, and administrators tended to identify social/behavioral first. Administrators seemed particularly sensitive to the larger context—to what extent their students would be able to survive outside the alternative setting. Teachers were more apt to ask tentatively, "Do you mean academic goals?" Then they

would proceed to explain the academic orientation of the program as it related to the social/behavioral needs of their students.

The students' perceptions of the programs also tended to focus on the social/behavioral context, although there are some differences between the two programs. Students in the residential programs perceive the goals of the program in terms of "What do I have to do to earn my way out of here?" Those students usually identified social behaviors or skills in which they had to improve. Students in the community-based program were more likely to perceive program goals in a broader sense. They also identified social behaviors or skills in which they had to improve, but perceive the goals in terms of "What do I have to do to make my grade, What do I have to do to go back to my other high school, or What do I have to do to graduate?"

The pervasiveness of the social/behavioral component is evident in observations of *actual* classroom practices as well as *intended* goal statements. Teachers and service providers give continuous feedback on social behaviors throughout the day. The feedback is in verbal, written, and token from. The amount and specificity of tangible feedback seems to significantly exceed that of *regular* secondary setting.

Leadership is another program component identified that is related to context. Both programs have educational leaders with a strong long-standing commitment to the program. Both of these leaders have been with the programs since inception and have spearheaded the development process. A sense of mission and vision for the future of the programs seems to be balanced by an astute awareness of the day-to-day practical realities of servicing such a challenging population. Although one program is private and one is public, both leaders emphasize the struggle for adequate support and funding.

Process

The means by which the goals and philosophy of the behavioral/social intervention are communicated to students are carefully defined in both programs. Procedures for informing students of the expectations of the program and contingencies for meeting or not meeting those expectations are an integral part of the instructional context. Furthermore, students' success in meeting the academic and social expectations of the program are very carefully monitored and reported in written form. In the residential program a significant link in the communication process is weekly meetings between residential and classroom staff. In the community-based program biweekly staff meetings are accompanied by a strong communication link between home and school. The alternative program staff work at establishing a perception of the school as *approachable*. Students are often second generation or other relatives of former students. In both programs the goal of maintaining such communication channels regularly among service providers and caregivers seems to maintain a high level of student accountability.

The theme of student accountability is another process component that emerged frequently during interviews. The philosophy of the community-based

program is based on Glasser's model of Reality Therapy (1965). Students in that program are encouraged to continually examine their behavior from the perspective of responsibility. "Is my behavior responsible?" Also, teachers reinforce appropriate learning and social behavior during each class period through a punchcard system. Points earned on the punchcards are required for basic privileges and course grades.

In the residential program a sophisticated point system is utilized. Students work their way through four levels. In the firs level behavior is intensively monitored and basic privileges must be earned. At the second level behavior is still monitored closely, but points are accrued on a weekly rather than daily basis and may be used to purchased extended privileges. At the third level points are phased out and a daily conference is held in which self-evaluation and negotiations take place. Also at the third level students must assume leadership for their house for two weeks, supervising the preparation of meals, house maintenance, and negotiating disputes between peers. At the fourth level students are responsible for monitoring their own behavior and off-campus privileges are available. A point system is in effect 24 hours a day, every day. Points are awarded for behavior in residential as well as academic settings. An explicit set of negative contingencies is also built into the system.

The intensity of the behavioral component in both of these programs seems to be dependent on three factors. First, students constantly receive feedback on their behavior in all setting, not just in academic setting or special class. Second, students must earn basic privileges through compliance with behavioral standards. Third, the behavioral standards and criteria for awarding points are objectively stated and fixed, but the feedback process is very personal.

Input

Two input components were identified as contributing significantly to the delivery of alternative programming in the two sites: staff and physical plant. The administrators emphasize the importance of staff who work together and characterize strong staff as committed and student-centered. Other qualities that were mentioned included resiliency and a good sense of humor. The challenge of retention of quality staff was also raised; retentions were viewed as positive factors leading to consistency and development in programming. This year the residential program will proudly retire a teacher who has been with the program for many years. Competitive salaries and support for staff development are factors the administrators felt contribute to retention.

Although modern, appropriately designed facilities do not guarantee a quality program; it was the perception of the evaluators that this aspect of input is a significant component of the two programs. The residential program was originally housed in one old farmhouse and has gradually added several residences, a barn, and a two-story school building. The day program was originally housed in an old school building. The day program was originally housed in an old school, but now is located in the same area of town in a newer, larger, modern facility. Advocating for adequate space and raising funds to plan for appropriate space are processes that the leaders of the

programs pursued for many years. Perhaps because the physical plant is so tangible, it serves a particularly important function in reinforcing the credence of the programs. Being perceived as an established credible organization may be important for securing and maintaining financial support as well as for developing a sense of positive identity on the part of members (staff and students).

Product

Student outcomes can be assessed in a variety of ways including testing, observation, and grades. In the two alternative programs studied it was the perception of the evaluators that grades and testing, the traditional indicators of student progress, are de-emphasized. Instead, traditionally relied upon more in clinical settings, observation is the primary means of assessment. Both programs administer standardized tests regularly, but do not seem to rely on the results for educational planning or assessment of outcomes. Documented through the point system, conferences, and reports, observation seems to be the primary means of determining student progress.

As mentioned previously, teachers seem particularly concerned about behavioral outcomes. The assumption seems to be that if the behavioral goals are not being met, then the content being taught becomes irrelevant. This is in definite opposition to the orientation of regular secondary schools—administrators seem more concerned about long-term ramifications of student outcomes: Will the student be able to graduate? Will the student be able to *make it* in another program or job?

Administrators, teachers, and students all are concerned about the lack of transitional programming available when students exit the alternative program. Despite the national thrust to create transitional programs for disabled adolescents moving from public schools to the world of work, the administrators of these two programs feel that in very few cases are adequate services available to meet the needs of students transitioning out the alternative school. Their attempts to track students after leaving the alternative programs have yielded mixed and sometimes discouraging results. Some might perceive the regression of behavior after leaving as a failure of the program. However, in many cases, it probably is more appropriate to attribute it to a lack of support for maintaining behavioral gains made while in the program.

CONCLUSIONS

The CIPP model appears to be a valuable conceptual model for designing program evaluations in alternative settings. An advantage is that it encourages evaluators to focus on decision making and process *in the context* of a specific program's goals. This not only allows for establishing evaluation criteria appropriate for the unique student body being served, but also expands the focus of the evaluation from measurable goals and outcomes to qualitative aspects of processes and interactions.

In this study the CIPP evaluation model was used in two alternative schools.

Context, input and process evaluations offered information about each school's goals, objectives, and implementation procedures, while product evaluations offered information about program outcomes. Examination of data from these evaluations shows that alternative programming is an integral part of both Program A and Program B. Both programs furnish students with alternative programming within an alternate environment. Placement of students in the alternative environment is not isolated from selection and implementation of appropriate programming to meet their individual needs.

Further investigations using the CIPP Model might include the integration of some objective measures of classroom milieu and interactions such as the Classroom Environment Scale (Moos & Tricketts, 1974). The evaluators would welcome comments from colleagues who have utilized the CIPP model in alternative schools.

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Mary W., Schmidt, School of Education, East Carolina University, Greenville, North Carolina 27858-4353.

Nancy E. Harriman, Department of Education, Plymouth State College, Plymouth, New Hampshire 03264.

Johann Bleicher, Agnes Fullilove Community School, 1615 Halifax, Greenville, North Carolina 27834.

Frank McCabe, The Pike School, R. D. #1, Box 18, Pike, New Hampshire 03780.

Providing Interagency Mental Health Services to Severely Emotionally Disturbed Students in a Rural Setting

Ruth M. White and Barbara E Bahnson

ABSTRACT

An innovative contract between the Minnesota River Valley Special Education Cooperative (MRVSEC) and the Scott County Mental Health Center, Shakopee, MN (SCMHC) was developed out of a need to provide a coordinated plan for meeting the complex needs of students with severe emotional/behavioral problems. The schools are mandated to provide educational services to a growing number of severely emotionally disturbed (SED) students for whom mental health issues (e.g., depression, character disorder, childhood schizophrenia) were clearly primary. Lacking the population base of local resources to provide day treatment for these children, an interagency agreement was developed to provide mental health services to student at no cost to their parents, within the school day and within the local school districts. The outcomes of this agreement have been seen as positive by students, parents, the school, and the mental health center.

Federal and state law requires that all handicapped students an education along with all needed related services at no expense to parents and in the least restrictive environment (closest to home and with as much access to regular education classes as possible). Rural school districts, however, often have particular problems developing appropriate educational programs for SED students with mental health needs. Lack of resources in rural communities including family counseling and psychiatric consultation and lack of a sufficient population base contribute to the impractibility of developing a wide range of alternative programs within local schools to address the needs of SED students (Helze, 1981; Beare & Lynch, 1983). Recently there has been an increased interest in developing an effective interagency agreement to address coordination of services to meet the meeds of some of these students (Forness, 1988).

Moving toward the goal of coordinated services, six rural school districts

served by the Minnesota River Valley Special Education Cooperative (MRVSEC) and Scott County Mental Health Services (SCMHS) developed an agreement to address interagency concerns. Each school district provides resource room SED support for grades K-12. MRVSEC provides a site and staff for one self-contained elementary SED classroom and two junior high SED classrooms. A high school alternative site is available with a neighboring special education cooperative. These school districts lack the population base for intensive services such as day treatment or residential programs when therapy become a primary focus. There is a growing number of students for whom mental health issues (i.e., depression, personality disorder, childhood schizophrenia) were clearly primary.

Severely SED students with significant mental health issues had been referred to programs located in the Minneapolis/St. Paul metropolitan area. This was unsatisfactory for a number of resources. It was costly to schools and was contrary to the desire to keep students close to home for treatment. The 60-1000 mile round-trip to program sites jeopardized family involvement and was often a barrier to completing follow-up counseling services once school-financed transportation was discontinued.

By default, the self-contained classroom became the alternative for therapeutically-based treatment programs. Although the training and expertise of the school personnel and the demands of the public school environment resulted in a program strong in academic support, individualized instruction and curriculum, behavior management plans and social skills training, the SED classroom did not meet the mental health needs of many of the students for family counseling, psychiatric consultation, and other services.

At this time, the Scott County Mental Health Center was looking to develop proactive supportive services to meet the mental health needs of children and adolescents. Funds and staff had not previously been allocated for this population. Children were usually seen by SCMHC at a time of crisis and extreme stress. Often the police and juvenile court system would recommend mental health services or emergency evaluation. Truancy, self-injurious behavior, depression, and decrease in school performance are the specific behavioral problems presented for psychological evaluation.

An informal review of MRVSEC records concluded that the majority of students involved in self-contained SED programs were also seen by Scott County Human Services. Of the 44 students who had been enrolled in the MRVSEC SED junior high classroom from 1983-1985, for example, over half had an assigned child protection worker. One in four students was involved in juvenile court proceedings, and nearly one-third were placed in foster homes. Despite this overlap of school and county involvement, there was no procedure for coordinating services.

The leadership of Scott County and MRVSEC acknowledged the need for an interagency agreement that would address the mental health needs of the students in the MRVSEC programs. Key components of the contract are: (a) services are provided at no cost to the parent; (b) any assessment or therapy

would occur during the regular school day; and (c) the focus of the mental health intervention would be to help maintain the student in a public school setting.

For any interagency contract to survive, the directors of mental health systems and schools need to conceptualize an integrated mental health service. In this particular situation MRVSEC initiated their concerns to SCMHS. The project was presented to a former SED teacher now practicing as a clinical social worker who then developed clarification of concerns. In this original form, the concept of cooperation was applied to detailed specific school needs that repeatedly occurred, especially the need to access established SCMHC emergency evaluation, hospitalization, and medication programs.

Using a county attorney, these concepts and needs were hammered into a legal contractual template that simply outlines a contractual relationship between both school and county. Very little of the original conceptual piece appears in the final approved version of the contract that was signed by the respective Boards. Rather, the conceptual overview served as a starting point, clarifying what was needed. This was where any contractual agreement must start.

It is unrealistic to believe anyone outside a school or mental health community could conceptualize the relevant needs or issues. The concept begins with the professionals closes to experiencing the service need; then a legal agreement can occur.

THE INTERAGENCY AGREEMENT

MRVSEC developed a Purchase of Service Agreement with the Board of Scott County to provide mental health services to students enrolled in MRVSEC programs. These mental health services were described as "beyond those required of the MRVSEC in providing educational services to the student" but "supplemental to the student's IEP." In practice, this meant that any mental health services needed to help maintain or support the student in school and at home could be accessed, including assessment, individual therapy, family therapy, chemical dependency evaluation, support to staff, and consultation with the psychiatrist. Specifics of the contact include:

1. The SCMHC will serve children enrolled in MRVSEC programs.
2. Special billing arrangements were described for students who are not residents of Scott County.
3. Scott County employees assigned to work under this contract remain employees of the county and are not considered MRVSEC employees for any purpose including, but not limited to, salaries, wages, and other compensation for fringe benefits, etc.
4. Each party maintains its own liability insurance protecting itself, its officers, employees, and agents against claims arising from this agreement.

It is relevant to note that MRVSEC, rather than any student or family, is the client in this agreement. No student's family receives a bill for services, not is information provided to the school or student accessible to county employees not specifically assigned under the contract. This process ensures confidentiality of school referrals, an important guarantee the school can give parents or students ;who might be reluctant to involve themselves with country human services.

Scott County bills the MRVSEC at an hourly rate for any services provided including assessment, consultation, staff in-services, report writing, and counseling. MARVSEC pays the full fee, then submits it for reimbursement to the Minnesota Department of Education—Special Education Section. In Minnesota, local school districts are reimbursed at a rate of 52% by the Department of Education for contracted supportive services. After receiving the reimbursement, MRVSEC in turn bills Scott County for the remainder of the total payment. In this way, the school and county share in financing the interagency agreement.

To effectively and clearly identify needs and expectations and to develop comprehensive coordinated plans for each student, the following procedures were implemented.

1. The school team (SED teacher, school psychologist, social worker determine which student currently served by the MRVSEC programs need mental health services.
2. Summarizing the student's current level of functioning (cognitive, academic, physical-medical, communication, social-emotional) and his/her present educational program, a referral form is completed by the team. Specific behaviorally driven referral questions to be addressed by SCMHC are included.
3. Releases of Information are obtained by MREVSEC.
4. At a scheduled weekly meeting, the school liaison (school psychologist) meets with the staff of SCMHC to discuss new referrals, clarify referral questions, and address school concerns.
5. Referrals are handled directly by the SCMHC, and as such, do not become a part of the regular intake procedures or files accessible to other county employees.
6. MARVSEC arranges for transportation of students to SCMHC during school hours or arranges for SCMHC to visit the school.

INTERAGENCY SERVICES

It was clear from the beginning of implementing this interagency agreement that using SCMHC as crisis intervention was not particularly effective. In fact, it tended to increase interagency conflict. Behavioral interventions could not be provided effectively by persons outside of the SED program not any expectation that the results would generalize to school environment. On this

issue of crisis intervention, the roles of SCMHC and the school complement each other well. SCMHC provides psychiatric and psychological consultation, makes recommendations for developing crisis management strategies for specific students, and provides emergency assessment and psychiatric hospitalization when needed and appropriate. The school provides sufficient staff and planning time to develop and implement individualized behavior management plans and has the responsibility of anticipating problems so that SCMHC services can be accessed before a crisis situation develops. Based on past experience, essential planning time had averted countless "emergencies":

1. By providing support to all staff;
2. As a methodical response in a program that is inherently crisis oriented;
3. Providing a framework/program to address behaviors and needs; and
4. Clarify methods useful in working with suicidal students.

For some students, this means that a referral to SCMHC is made at the time s/he enters the program, and occasionally a psychiatric or psychological assessment becomes part of the intake procedure prior to acceptance into the MRVSEC program.

The expertise at SCMHC is also tapped to provide materials and references to develop intervention groups in the classroom. It provides programs (e.g., grief counseling) and parent education/family enrichment classes within the school district. This contract has also provided supportive services and training in response to the expressed interests of the school staff. For example, in the past two years SCMHC has provided information and in-services on topics such as developing rapport with parents, stepfamily issues, and child abuse issues.

What has become the most effective and valuable use of the interagency agreement has been the cooperative problem solving which draws upon the resources of special education and community human services to address specific referral problems in a comprehensive manner. The following case studies illustrate this process.

Case Study #1

Jim is a 20-year-old male with an I. Q. of 50 living on an isolated farm with his family. He is the fourth of eight children; his father is an alcoholic and his mother is wheelchair-bound and in need of intense daily county nursing services. School concerns surfaced when postschool transition planning began. Jim became functionally school phobic and was frequently overwhelmed with anxiety and sadness about his mother's deteriorating health. Jim stated he was missing school to care for his mother, yet a home, he watched television or stayed in his room. Clearly concerned about his mother yet unable to provide for any of her care, Jim seemed to feel misplaced in his home as well as in school. The school referred Jim to the SCMHC to address his depression. SCMHC and school staff together developed a plan. SCMHC provided support to Jim's family and particularly to his mother in regard to

her health. The school provided special education staff to work with Jim in his home each morning before he was scheduled to leave for his vocational school placement. The staff helped Jim work on improving his competence in domestic skills and personal hygiene. Jim felt he was contributing to his mother's care by doing daily household tasks and his school attendance ceased to be a problem. This intervention was helpful in meeting not only Jim's mental health needs, but his educational goals as well.

Case Study #2

Michael is an 11-year-old student living with his mother and new stepfather. He was enrolled in the MRVSEC self-contained classroom for SED students, and despite and I.Q. of 130, he was failing all his classes even with special education support. He was socially isolated, withdrawn and had made suicidal statements. The school referred Michael to the SCMHC for a recommendation for therapeutic intervention. At this assessment, Michael appeared with his jacket sipped up over his head. During the parent interview, his mother did not know Michael's date of birth and was resistant to participate in any family counseling. After an incident where Michael intentionally cut himself at school, SCMHC assisted in placing him in a hospital for psychiatric treatment. When he returned to the MRVSEC program, individual therapy was provided at SCMHC for Michael by the school. (Family counseling as a follow-up to his hospital placement was not paid for by his mother's insurance, so no aftercare was pursed by the family.) After several months of therapy, Michael requested that his mother attend a session with him. There, with the therapist's support, he expressed to his mother his frustration and sense of isolation. Several months later, after intermittent attendance at Michael's sessions, his mother was able to make a commitment to family counseling. Michael and his parents now see a private family therapist. This choice was encouraged by the interagency staff who recognize that every family needs to make independent choices. At home and at school, Michael continues to have telephone contact with his SCMHC therapist when he has concerns or if depression symptoms recur.

OUTCOMES OF THE AGREEMENT

This interagency agreement is considered advantageous to both the special education programs and SCMHC. The SCMHC appreciated the financial arrangement with MRVSEC and the opportunity to provide proactive, supportive mental health services. MRVSEC has benefited from easy access to community resources and from the opportunity to provide convenient, no-cost mental health services to students. In the two years of the contract:

1. No parent has refused permission for a SCMHC referral.
2. Only one student has refused SCMHC services.
3. Students receiving counseling have acted as positive role models to their families and peers as they have benefited from therapeutic intervention.
4. The school staff feels there is a system in place to access many resources.
5. On the onset of the agreement, MRVSEC had assumed the SCMHC could

relive the school of some of the burden of physical management of students in crisis. In fact, what has evolved is that, with SCMHC support and with more options for interventions available, this has ceased to be an area of primary concern.

6. MRVSEC had also assumed that perhaps students would be less likely to be placed outside of the county with SCMHC involvement. Although no formal evaluation has been made as yet, it appears that as students continue to be placed in day treatment or residential sites, the transition to an from more restrictive placements is greatly facilitated by the assessment, consultative, and therapeutic opportunities provided through the interagency agreement.

7. The two agencies have developed a positive working relationship that promotes shared responsibility for meeting the complex needs of SED students and adolescents. This refined relationship has promoted increased awareness of how various child agencies can link with one another to establish a mutually beneficial program of service provision.

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Ruth M. White, Scott County Mental Health Center, Courthouse 300, Shakopee, Minnesota 55379.

Barbara E. Bahnson, Minnesota River Valley Special Education Cooperative, New Prague, Minnesota 56071.

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Ruth White
Scott County Mental Health Center
Courthouse 300
Shakopee, MN 55379

Parents and Teachers as Self-Evaluation Trainers for Adolescents with Behavioral Disorders

Susan Rovet Polirstok

ABSTRACT

Behaviorally disordered adolescents present serious learning and management problems for teachers and parents. Teaching adolescents to evaluate and consequate their own behaviors has tremendous implications for placement of adolescents in less restrictive settings in schools and in the community at large. Teachers and parents, by virtue of the time they spend with problematic adolescents, are the most logical candidates to serve as self-evaluation trainers. A variety of self-evaluation procedures and ways in which these can be implemented by teachers and parents are delineated. Issues involving reliability, maintenance, and generalization of self-evaluated behaviors also are discussed.

Adolescents with behavioral disorders—whether in special education facilities, self-contained classes, or mainstreamed classes—pose serious academic and management concerns for teachers. In most cases, the nature of the difficulties that behaviorally disordered adolescents experience go beyond the school setting and extend into the family/home setting, where parents are constantly confronted with day-to-day management problems. Hence, a critical issue for teachers and parents is how to teach behaviorally disordered adolescents to be socially appropriate across a variety of situations and settings and to overcome academic deficits by increasing motivation and on-task time (Polirstok, 1987b).

Among the types of behavioral difficulties disordered adolescents often manifest are hyperactivity, impulsivity, perseveration, distractibility, aggression, withdrawal, noncompliant behavior, low self-esteem, external locus of control, and emotional ability (Kauffman, 1985). These difficulties have been found to be related in varying degrees to a broad range of factors including perceptual and linguistic processing deficits, attentional deficits, nonverbal ingratiating behavior deficits, dysfunctional family relationships, failure-ladened prior school histories, and differential treatment in the home,

school, and community by teachers, parents, and peers.

While all of these factors may be contributory, none can be seen as directly causal and are most revealing when viewed in the context of a constellation of problems. These impinging problems often predispose disordered adolescents for ridicule, fights, and exclusion from certain activities by their "normal" peers, as well as for punitive measures and disapproval from their teachers and parents. In fact, a cycle of ongoing and often escalating disapproval and rejection may characterize the relationships between adolescents with behavioral disorders and their peers, teachers, and/or parents, with the quality of these interactions related to the degree of severity of the social maladjustment (Polirstok, 1986; Polirstok & Greer, 1977). This differential treatment by peers, teachers, and/or parents further validates for adolescents with behavioral disorders their own lack of self-worth, which may contribute to increased defensiveness, perceptual distortions, and aggressive or withdrawn behaviors (Kauffman, 1985).

Changing the quality of interactions between teachers, peers, and parents appears central to enhancing self-worth and fostering greater social acceptance of the behaviorally disordered adolescent. Improvements in self-worth and social acceptance directly impact on academic functioning as students become more motivated to succeed and more concerned with their performance (Morgan & Jenson, 1988; Peck, Blattstein, Blattstein, & Fox, 1980). That disordered adolescents may become more willing to accept responsibility for their social or academic performance can be conceptually understood as a shift in their locus of control, from an external focus to an internal focus. As disordered adolescents become more internally focused, they are less apt to attribute problems encountered to outside forces beyond their control. Changing the focus of control in behaviorally disordered adolescents is critical to any intervention by teachers or parents because it will decrease the "policing demand" on adult authority and enable students to recruit reinforcement for proacademic and prosocial behaviors from significant adults in their environment (Gresham, 1984).

One specialized approach that has been used effectively by teachers and parents to change problematic behaviors in adolescents across a variety of settings, and to increase locus of control, is self-evaluation. Self-evaluation procedures provide a practical, inexpensive, and powerful alternative for dealing with problematic students (Bolstad & Johnson, 1972; Glynn, Thomas, & Shee, 1973). As a management technique, self-evaluation places the responsibility for behavior on the adolescent and teaches the adolescent to provide consequences for his/her own behavior. Through the use of self-evaluation (which is also referred to in the literature as self-monitoring, self-control, self-management, or self-regulation), adolescents can become more aware of their actions and can learn to regulate them according to environmental expectations (O'Brien, Riner, & Budd, 1983).

In many studies, self-evaluation procedures were responsible for reducing the variability of social behavior and increasing the levels of appropriate on-task behavior (Glynn et al., 1973; Lloyd, Hallahan, Kosiewicz, & Kneedler,

1982; Rooney, Hallahan, & Lloyd, 1984). In addition to increasing appropriate academic and social behavior, the effective use of self evaluation procedures decreases the demand on teacher or parent time. According to Rhode, Morgan, and Young (1983), students who receive self-evaluation training depend less on adults in authority for guidance, reinforcement, and control than they did prior to training.

Teaching adolescents to evaluate and consequate their own behaviors has tremendous implications for placing students in less restrictive settings in schools and in the community at large (Wang, 1981). Such procedures can produce academic gains due to increased on-task time, foster greater social acceptance due to decreased inappropriate behaviors, and contribute to enhanced interactions with significant adults in the environment, particularly teachers and parents (Glynn et al., 1973; Hallahan, Lloyd, Kosiewicz, Kauffman & Graves, 1979). In light of these benefits, this paper will detail types of self-evaluation procedures and ways in which teachers and parents can implement such procedures in adolescents with behavioral disorders. Reliability of self-reporting and maintenance and generalization of self-evaluated behavior(s) will also be discussed, since these issues are critical to implementing a successful self-evaluation program.

Types of Self-Evaluation

Because high external locus of control is associated with poor academic performance and social adjustment problems (Bryan & Bryan, 1978), most self-evaluation methods emphasize making target students aware that they are responsible for their behaviors and the consequences of those behaviors. The most widely employed self-evaluation procedure involves teaching a student to identify a behavior for assessment, and to monitor, record, and evaluate the frequency of that behavior in relation to a set of criteria (Morgan & Jenson, 1988). The student is then instructed to reward him/herself for attaining acceptable levels of behavior based on those predetermined criteria, using reinforcers that may often be self-selected.

In the classroom or home setting this approach involves clearly identifying rules and their consequences, helping the adolescent target a problematic behavior for evaluation, and monitoring that behavior in relation to an acceptable level of occurrence on which the teacher or parent and the adolescent have previously agreed. If the adolescent's behavior is congruent with the predetermined criteria, then s/he is entitled to some type of reinforcement, which can be selected by the teacher, parent, or adolescent. Hence, this process involves making the adolescent more cognizant of his/her inappropriate behavior, teaching the adolescent to count and record that behavior, and providing meaningful positive reinforcers to reward his/her self-evaluation efforts.

Self-evaluation procedures also may be designed using a cognitive behavior modification approach (Kendall & Braswell, 1982; Kendall & Wilcox, 1979, 1980). Included in the cognitive domain are the behaviors of deliberation, problem solving, planning, and evaluation. A critical component of this approach involves the verbal self-instruction method which trains students to

talk to themselves to control their behavior and uses active rehearsal and modeling as training techniques (Graybill, Jamison & Swerdlik, 1984). According to Morgan and Jenson (1988), verbal self-instructions has been used with hyperactive children (Bornstein & Quevillon, 1976; Douglas, Parry , Marton, & Garson, 1976), and behaviorally disordered students (Davis & Hajicek, 1985; Kendall & Finch, 1978).

Training verbal self-instruction involves teaching students to verbalize a specific and directive series of questions and/or statements that are oriented toward problem solving. These statements involve (a) defining the problem (What's my problem?), (b) determining response alternatives (What's my plan?), (c) selecting an appropriate response (Am I following my plan?), and (d) reinforcing oneself for selecting a correct response and resolving the situation correctly (Did I do it correctly?).

According to Kendall & Braswell (1985), if the response chosen was an incorrect one, then instead of making some type of self-reinforcing statement, a student would need to be taught to make a coping statement. Such a statement would acknowledge the mistake and pinpoint what the faulty reasoning might have been. Overall, this process of verbal self-instruction can be very helpful to adolescents in developing behavioral problem-solving strategies that can be generalized to a variety of problematic situations (Peck et al., 1980). After the verbal statements have been learned and appropriately used aloud, they can be faded; the student no longer has to verbalize them aloud, but can instead say them to him/herself.

Regardless of which self-evaluation procedure is employed, the opportunity of behaviorally disordered adolescents to earn reinforcement for their self-control efforts is most critical. Not surprisingly, one of the more interesting findings associated with teaching adolescents to self-evaluate is the overall effectiveness of self-determined contingencies. Rosenbaum and Drabman (1979) found that self-determined contingencies could be as effective or more effective than externally determined contingencies. In other words, individuals may work harder at self-control when they are able to self-reward with reinforcers that they themselves have chosen.

Implementing Self-Evaluation Procedures

Parents and teachers, by virtue of the contact time they spend with problematic adolescents, are the most logical, and potentially the most successful, candidates to serve as self-evaluation trainers. In implementing a self-evaluation program, the following elements must be carefully considered: behavior targets, behavior criteria, and ways of involving the adolescent. All three elements must be planned carefully prior to initiating a self-evaluation program.

Behavior targets—For parents, the range of behaviors that they can train their adolescents at home to self-evaluate are primarily social in nature and include family rule compliance; household task completion; use of appropriate language; level of verbal/physical aggression towards siblings; appropriate socialization with parents, siblings, and/or peers; and homework completion.

For teachers, the range of behaviors that they can train problematic adolescents to self-evaluate are both academic and social in nature and include on-task behavior , out-of-seat behavior, assignment completion and accuracy, attendance, punctuality, homework completion and accuracy, use of appropriate language, inappropriate verbalizations, classroom rule compliance, and appropriate socialization with peers.

In either the home or the school setting, selection of target behavior(s) is critical; behaviors chose should be readily definable, observable, and occur with enough frequency to merit intervention. For example, in the home or school setting, decreasing the use of inappropriate language would have to be specifically defined to include the use of profanities, slang expressions, and grammatical errors. Task completion in either the home or school setting would have to identify the specific tasks to be completed within a given period of time. Accuracy or quality of task completion would be an extension of this behavior, and would be trained as a follow-up after task completion had reached an acceptable level.

Self-evaluation trainers must decide whether to collect data using event recording over an extended period of time at school or home, or to use a time-sampling procedure that involves collecting data at predetermined intervals. Time-sampling recording can provide the data collector with both a count of the number of intervals a target behavior was demonstrated, as well as a duration of time spent engaged in that behavior. The target behavior itself may dictate which data collection procedure to employ. For example, in the home setting, the number of profanities uttered would dictate event recording, while the amount of time spent arguing with a sibling would involve either time-sampling recording or duration recording.

Behavior criteria—In establishing a self-evaluation program, trainers must determine how behaviors are to be rated or evaluated. This is essential because ultimately the rating system has to be learned by the behaviorally disordered adolescent. The evaluation system can be developed to reflect a numerical rating, but each number must clearly represent a particular degree of behavior which can be clearly communicated and examples provided to the adolescent. In some instances, where the frequency of a given maladaptive behavior is exceedingly high, a Differential Reinforcement of Low Level Behavior (DRL) approach must be employed. In DRL, a final acceptable level of a given behavior is ultimately reached by establishing a series of goals that gradually lower the behavior until it approaches the final acceptable level. This procedure recognizes the fact that to extinguish a high-frequency behavior in a relatively short period of time is improbable.

There is no hard and fast rule governing what criteria are appropriate for a given behavior. The parent or he teacher must determine, based on the behavior itself and the situational expectancies, what level of behavior is acceptable. Criteria established should be reasonable and should not be based on an unrealistic desire for an adolescent to be perfect. Just as professionals in special education often use an 80% criteria for meeting goals on the IEP, the 80% criteria can be a helpful guide for teachers and parents in initially

establishing behavior criteria.

Involving the adolescent—Another important factor in self-evaluation involves the ability of parents and teachers to enlist the interest and support of the adolescent by exploring with the adolescent how changes in a particular target behavior or behaviors could impact on his/her life at home or at school. In essence, such discussion should focus on the potential to change the "cycle of on-going mutually aversive interactions" (Polirstok & Greer, 1977) that often characterize the relationships between problematic students and their teachers and parents.

The most important factor used in involving the behaviorally disordered adolescent in such a self-evaluation program is reinforcement. Finding reinforcers that will be meaningful to the adolescent is critical. This can be accomplished by having the adolescent identify items or events that s/he considers reinforcing. However, one must provide a realistic monetary framework for adolescents, so that items and events identified are not overly expensive. All to often, parents miss potential opportunities for reinforcement in ignoring special time that can be spent with an adolescent in a mutually shared hobby or project. In this regard, shared time with a parent can be very reinforcing in the adolescent's life.

Building home-school linkages—According to the ecological perspective, making the home-school environment more congruent with each other helps a youngster to function more consistently across these settings (Bricker & Caruso, 1979). For a behaviorally disordered adolescent who has difficulty modulating his/her behavior in relation to differing situational expectancies, developing linkages between the home and the school environment so that they become more congruent with each other is an important consideration (Lightfoot, 1981). If target behaviors for a self-evaluation program are decided upon jointly between the teacher and the parent and decision about how to implement the program are also cooperatively determined, then the resultant behavior gains in the adolescent are more apt to be maximized and maintained across both setting (O'Brien et al., 1983). However, once an adolescent has been taught to self-evaluate successfully, whether in the home or the school environment, the adolescent's familiarity with the procedures can be transferred to the other setting. In summary, developing a self-evaluation program for a behaviorally disordered adolescent in both the home and school setting provides and excellent opportunity for parents and teachers to work cooperatively together to maximize behavioral gains across settings.

A Training Curriculum for Parents and Teachers

Special educators often have trained parents and other teachers to do specific types of interventions with handicapped children using a "trainer of trainers" model (Hurwitz & Polirstok, 1985). Only one teacher in a given school program is needed to serve as the *turnkey trainer.* Initially parents and teachers who wish to employ self-evaluation procedures need a basic understanding of reinforcement principles and strategies. Parents and teachers must learn what being contingent means with regard to their approvals and disapprovals in the contexts of the home or school settings. Once these basic understandings

have been developed, the essential components of self-evaluation must be trained:

a. the selection of frequently occurring, clearly definable, and readily observable behavior(s) for self-evaluation;

b. the systematic observation of target behavior(s) and data collection;

c. the involvement of the adolescent in the program—developing appropriate reinforcers;

d. the development of a behavior rating system;

e. the use of feedback to provide information to the adolescent about the appropriateness of his or her response (often done through a matching of student self-ratings to teacher or parent ratings over a set period of time); and

f. the use of token reinforcement to reward accurate self-reporting.

Of the self-evaluation components outlined above, providing the adolescent with feedback about the appropriateness of his/her responses can be most significant in producing behavior change in problematic adolescents. This is accomplished initially by the teacher or parent rating the adolescent for a specific period of time on one or more of the targeted behavior(s), and explaining to the adolescent the factors that contribute to that rating. When the teacher or parent is certain that the adolescent understands the manner in which ratings are derived, a matching procedure is instituted. The matching procedure permits adolescents to earn tokens or points for closely approximating teacher or parent ratings of their behavior(s); the closer the match of the rating, the greater the number of tokens or points that can be earned. Thus, adolescents can learn more about how their behavior is viewed or rated by significant others in the environment. By making their behavior more congruent with teacher/parent ratings, adolescents can increase their internal locus of control. When adolescents can consistently match teacher/parent ratings over a period of time, the teacher or parent can begin to fade out the matching program and rely more heavily on student self-evaluation reports. However, to ensure that students continue to self-evaluate accurately, matching may continue to self-evaluate accurately, matching may continue on a limited variable ratio or interval schedule (Polirstok), 1987b). The actual training of parents or teachers to implement self-evaluation procedures requires not only the theoretical discussion time, but hands-on applications involving observation and data collection, reinforcer identification, and feedback practice. The observation and data collection can be done using the actual classroom or home setting, videotapes of those settings, or other videotaped material appropriate for observational purposes. This training curriculum for self-evaluation trainers can be accomplished over ten 1½ hour sessions, and parallels a similar behavioral training program that was developed for parents by Polirstok (1987a).

Self-Evaluation: An Illustrative Case

As an illustration of how self-evaluation techniques can be employed, Polirstok

(1987b) conducted a study whereby a teacher was trained to implement matching a self-evaluation procedures with a 12-year-old neurologically impaired and behaviorally disordered white male. The behaviors targeted for self-evaluation included (a) out-of-seat behavior (the number of times that the subject was out of seat without permission during 40-minute observation sessions); (b) inappropriate verbal behavior (the number of inappropriate noises including call-outs, grunts, bird sounds, tongue clicking, yelling, inaudible responses to teacher questions, or ignoring teacher questions per 40-minute observation sessions); and (c) task component completion (the number of task components completed out of a maximum number of 8 components assigned per 40-minute observation sessions). After a brief baseline phase (5 sessions), a matching evaluation phase was instituted (7 sessions). The student was able to earn "free time" tokens contingent upon his/her matching the teacher ratings on the three target behaviors. These free-time tokens could be exchanged for time at a particular activity of the student's choice, selected from a list of activities specifically structured for him/her. Each free-time token earned for a matching rating was worth 5 minutes and could be exchanged at the end of each day. Before the onset of matching, the teacher fully acquainted the student with the following rating system:

Behavior	Good	Fair	Poor
Out of Seat	0 - 2*	3 - 5	6 - 10
Task Completion	6 - 8	3 - 5	0 - 2
Verbalizations	0 - 2	3 - 5	6 - 10

*occurrences per 40-minute observation session

At the conclusion of the matching phase, the teacher briefly returned to a baseline period (3 sessions) before having the student self-evaluate without matching (7 sessions).

As a result of this overall procedure, changes in all three target behaviors were noted. Out-of-seat behavior decreased from a mean of 7 occurrences during baseline 1 to a mean of 3.4 occurrences during the matching evaluation, and was diminished further to a mean of 2.1 occurrences during the self-evaluation phase. Similarly, improvement was noted for task component completion during contingency phases. Out of 8 task components assigned, the student completed a mean of 2.4 components during baseline 1, a mean of 6.1 components during the matching evaluation phase, and a mean of 6.2 during the self-evaluation phase. The pattern of inappropriate verbal behavior decreased from a mean of 17.4 occurrences during baseline 1 to a mean of 7 occurrences during the matching evaluation phase, but rose slightly to a mean of 7.7 occurrences during the self-evaluation phase. It is important to note that while problematic behaviors were not extinguished at the end of the study, they were occurring at more manageable rates and approached levels of behavior that other peers in the classroom were exhibiting.

Based on the degree of improvement shown by the student on the three target behaviors, the teacher decided to continue the self-evaluation program for over a 4-month period in order to maximize treatment gains. Data reported

for this extended treatment phase showed that (a) out-of-seat behavior decreased further to a mean of 1.8 occurrences; (b) task component completion increased to a mean of 7.2 components completed out of a maximum of 8; and (c) inappropriate verbal behavior decreased markedly to a mean of 4.4. occurrences. Overall, these changes in behavior were stable and demonstrated the effectiveness of an on-going self-evaluation program.

Reliability of Self-Evaluation

Skeptics of self-evaluation often challenge the accuracy and reliability of student self-reporting. However, researchers maintain that when students self-evaluate, they are less able to deceive anyone including themselves about their performance. According to Thomas (1976), the potential of peer surveillance and similarly sibling surveillance have a positive influence on the accuracy of student self-reporting. Student matching of teacher/parent ratings and consistent social reinforcement for honesty further explain reliability in self-rating (Drabman, Spitalnik, O'leary, 1973).

While the evidence suggests that most students will be honest in monitoring and recording their own behavior, some students will be exceptions to this rule. This does not mean that self-evaluation procedures cannot be taught to these students. In fact, many studies have documented findings that indicate that a high level of accuracy is not necessary initially for behavior change (Bolstad & Johnson, 1972; Hallahan et al., 1979). However, when the frequency of excessive behavior is highly discrepant with the adolescent's evaluation, O'Brien et al. (1983) suggest placing contingencies on the adolescent's reporting accuracy for a period of time as a method for initiating accurate self-evaluation.

Maintenance and Generalization of Self-Evaluated Behaviors

The measure of success of any behavioral intervention program is the extent to which newly acquired behaviors are maintained over time and occur in a variety of settings after the treatment is completed. Self-evaluation procedures have been effective in producing behaviors that are both durable over time and generalizable from self-contained and resource room settings to a variety of regular classroom settings (Glynn et al., 1973; Rhode et al., 1983; Turkewitz, O'Leary, & Ironsmith, 1975). Behavioral gains produced by self-evaluation procedures have been found to be more resistant to extinction than those established by externally regulated procedures (Rhode et al., 1983; Rosenbaum & Drabman, 1979).

One important consideration in planning for the generalization of self-evaluated behaviors is that the degree of generalization is closely related to the training of these behaviors in a variety of settings. Contrary to what many teachers believe, generalization of newly acquired behaviors to other settings does not occur automatically and must be trained in specific ways (Stokes & Baer, 1977). This suggests the importance of a team approach in using self-evaluation procedures across many different subject area teachers at the secondary level, as well as the importance of the home-school linkage. If teachers can work collaboratively to extend self-evaluation training across

settings within the school, behaviorally disordered adolescents will experience greater consistency and structure within the program. The extent to which self-evaluation procedures can also be extended to the home further demonstrates for students that appropriate behavior is an ongoing expectancy.

Factors that contribute to maintenance and generalization of self-evaluated behaviors include the following:

1. the reinforcement value to students of self-evaluation itself (the feeling of being in control) and the desire to continue and extend that privilege (Frith & Armstrong, 1986);
2. the potency of self-selected reinforcers and reinforcement contingencies (Rhode et al., 1983);
3. the academic and social success that students experience as a consequence of self-evaluation which enables them to recruit additional reinforcement from teachers, parents, and peers; and
4. the portability of self-evaluation strategies from one setting to another because they are student-implemented (Henker, Whalen & Henshaw, 1980). For many behaviorally disordered adolescents, self-evaluation procedures offer an opportunity to in control and provides and impetus for them to continue to use these techniques with peers and in classroom, home, and community settings.

CONCLUSION

Self-evaluation is an effective technique for improving the academic and social performance of behaviorally disordered adolescents. Parents and teachers, by virtue of the time spent with behaviorally disordered adolescents, are logical self-evaluation trainers for this population. Through self-evaluation activities, behaviorally disordered adolescents can learn to control their behavior so that they can function in accordance with the expectancies of a given situation or setting. Self-evaluation can impact significantly on the lives of behaviorally disordered adolescents by changing the differential way in which they are often treated by teachers, parents, and peers, and help them to move into less restrictive educational (mainstream) and community settings.

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Susan Polirstok, Associate Professor, Department of Specialized Services to Education. Lehman College, City University of New York, Bedford Park Boulevard West, Bronx, New York 10468-1589.

Teacher Competency Testing: What Teachers of Students with Behavioral Disorders Need to Know

Roberta S. Ramsey, Bob Algozzine, and April Stephens

ABSTRACT

Testing teachers has become the latest educational bandwagon to stir controversy and evoke praise and rage from teachers and other practitioners. At present, 96% of the states and the District of Columbia are actively planning or implementing teacher testing programs. Of this number, six are administering tests in the specific area of behavioral disorders/emotional disturbance. The objectives and content areas of knowledge included in competency testing programs within this specialized teaching area were analyzed and comparisons were completed across knowledge areas and among states. In general, much similarity exists in what teachers of disturbed students in different states are expected to know. This information represents a strong foundation for planning, implementing, and evaluating training programs for teachers of disturbed students.

Leaders in the teaching field have taken the stance that commitment to the professional demands highly qualified and prepared students (Futrell & Robinson, 1986; Shanker, 1986). Some professionals believe teaching will be enhanced by establishing standards for teachers beginning and continuing classroom instructional careers. Gifford asserts that "properly used, well-constructed, correctly standardized measures for prospective teachers are necessary for the development of the teaching professional and beneficial to the education of our young" (1986, p. 272). Albert Shanker, President of the American Federation of Teachers, believes that it would be a form of deprofessionalization to exempt teachers from minimum competency testing. Mary Hatwood Futrell, President of the National Education Association, also has given support to fair testing of teachers. Across the country, testing the competence of teachers is a current bandwagon on which professionals in general and special education are jumping.

The practice is not new. Basic skills of prospective teachers were tested in most states during the early twentieth century (Rudner, 1987). This occurred at a time when most teachers had a high school diploma as their terminal

training certificate. Teacher testing programs declined as states increased educational requirements (i. e., Baccalaureate degrees) for the certification of teachers. The most recent round of competency testing has its roots in competency-based education which was first directed toward student achievement, or lack of achievement, over 15 years ago. Due to the literacy problems of high school graduates perceived by the citizenry, one solution that gained wide applause was that of writing goal statements specifying the knowledge expected of a student exiting our public education system (Farr & Olshavsky, 1980; Sandberg, 1979). This action was viewed favorably by both the general public and school personnel.

Because of an actual over-supply of teachers in some areas of the country, as well as the public's demand for some accountability in the education of our nation's youth, the populace in many states began questioning the skills of their educators (Dunathan, 1979; Schlechty & Vance, 1981; Starr, 1983). Competency-based teacher certification requirements and the tying of identified competencies to approved education programs were two approaches attempted (Krajewski, 1979; Villeme, 1977, 1982). In addition, available standardized tests such as the Scholastic Aptitute Test (SAT), California Achievement Test (CAT), American College Testing Program (ACT), National Teacher Examination (NTE), and the Pre-Professional Skills Test (PPST) were identified for use in admittance and/or at the exit point of teacher preparation programs; sometimes professionals used test results as initial certification standards (Rudner, 1987; Sandefur, 1987). These tests have also been used to evaluate general knowledge as well as pedagogical acquisitions. The practice is not without issues of concern to all teachers.

The professional literature is proliferate concerning the plight of minority teacher candidates. There is presently the documented occurrence of a lessening number of Black educators in our nation's public schools, while an increasing number of minority students are enrolling, especially in special education classes. In many states, certification (i.e., licensure) is withheld until success is demonstrated (i.e., cut-off scores are exceeded) on selected tests. Cole (1986) contends that measurement of teachers' competence is being used to deny access to the profession, arguing that Black educators are in danger of being eliminated from the school systems across the country. There is also concern for those entering an already marginally popular profession since entrance to some teacher preparation schools may be barred by failure to perform well on a competency test (Smith, 1984).

Professionals are also upset when pencil and paper assessments are used in a profession where performance evaluations are obviously more appropriate. It has been asserted that written tests do not evaluate important dimensions such as pleasure and social competence (Haefele, 1980; Johnson & Prom-Jackson, 1986). Berry, Noblit, and Hare (1985) report that school officials are interested in bright prospective teachers, but that they are not necessarily looking for those with the highest or best academic qualifications. More importantly, their findings pinpointed skills desired to be those of relating to children and parents, organization, discipline, involvement in extracurricular activities, and the ability to withstand pressure. Typically, these are not

addressed on tests of teachers' knowledge in specific or general content areas. Hilliard (1986) points out that important student outcomes such as work habits, attitudes, and creativity cannot be determined through pencil and paper tests taken when entering the field from a teacher training program.

While Weller (1982) argues that it is possible to develop quantitative measures to assess actual teacher performance on predetermined competencies deemed essential to effective instruction, such is not the case on most currently popular teacher competency tests. Sandefur (1987) reports that only 14 states are assessing teacher performance while 48 (Rudner, 1988) are using tests of knowledge to measure competence. Again, what a teacher does has yet to gain widespread acceptance as a measure of professional competence. Clearly, the situation, the age and maturity level of the students, the tolerance level and personality of the teacher, the teacher training orientation, and the needs of the students all play a part in determining the best solution. Even if some best practices could be identified, test critics are quick to argue that examinees could fake these qualities while being observed, only to resort to more natural behaviors following the assessment sessions.

Competence testing of teachers by states across the nation is accomplished in a variety of ways. Some states test both general and special educators alike on basic skills and/or professional knowledge along with subject area specialty tests. Some states issue endorsements to teachers upon completion of approved programs in special education, while others add endorsements following completion of initial certification requirements. Standardized tests may be given to determine entry to a teacher preparation program, or upon exit. Testing in some states is for initial certification only; in others, tests are used to recertify practicing teachers as well. Any number of combinations of these practices can be found (Sandefur, 1986, 1988); however, few reports of the teacher competency testing practices applied in special education are available (Ramsey, 1988; Sandefur, 1988).

The purpose of this research was to report (a) which states test special educators with subject area specialty tests in behavioral disorders, and (b) which content categories of knowledge are included in these tests.

METHOD

A nationwide survey of teacher competency testing programs in special education was conducted. Letters were sent to chief state administrators of special education requesting lists of objectives on which special education teachers of behaviorally disordered students are tested. Information was also requested about the type of test, if any, they must take. These state officials replied with various combinations of responses such as (a) names of contact persons responsible for testing within their state, (b) names of special education categories tested with corresponding objectives, and/or (c) explanations of testing procedures in place or under study. When sufficient information was received from the contact person, no further action was taken. In some instances, letters were sent to individuals identified by the initial inquiry.

TABLE 1

Summary of Special Education, Competency Tests, March 1988

State	Special Education Certification Tests														Implementation				
	Yes		Yes											Type					
	Yes	No	MR	SLD	SED	VI/ BL	HI/ D	D/ BL	PH/ IO	OHI	SPI	MULT	G & TAL	OTHER	(NTE) STAND	CUS	PLACE	STUDY	DATE
Alabama	X		X	X	X	X	X	X	X	X	X	X	X	EAR CH HAND		NES X	X	X	1981
Illinois	X		X	X	X	X	X		X		X			TMR & EMR		STATE X			1988
Indiana	X		X/?	X/?	X/?	X/?	?		X/?					EMR/ TMR	ETS ?	NES ST?X	X	X	1986/88
Oklahoma	X		X	X	X	X	X		X					GENERIC SE		NES X	X		1992
S. Carolina	X		X	X	X	X	X		X		X			SE	ETS X				1988
W. Virginia	X		X	X	X				X		X			PRESCH HAND		STATE X	X		1986

? Indicates items that are undecided or undisclosed.

After a second set of letters was sent to state contact persons listed in the recent publication of the Office of Educational Research and Improvement, U.S. Department of Education, entitled "What's happening in teacher testing: An analysis of state teacher testing practices" (Rudner, 1987, pp. 143-145), responses to the survey were received from 46 states and the District of Columbia. Follow-up telephone calls were made to state officials when further clarification was needed. Educational Testing Service (ETS) officials in three regional offices also assisted in clarifying data received from those states in which services are contracted.

Information was assembled and checked for consistency with Rudner's (1987) analysis. Data concerning testing of teachers from the 4 nonresponding states were verified from this source. Tabular presentations were compiled reflecting which states test special educators with behavioral disorders subject area specialty tests (see Table 1) and which objectives developed for these tests would be most appropriate for special educators to study (see Table 2). Summaries of these presentations of data were completed and represent results of the survey.

TABLE 2

Clusters of Special Education State Objectives

ABBREVIATED OBJECTIVES	STATES					
	AL	IL	IN	OK	SC	WV
SECTION I -Basic Knowledge and Historical Aspects						
1. Major Historical Developments	X	X	X	X	X	X
2. Philosophy of Special Education	X	X	X	X	X	X
3. Major Principles and Regulations of Public Law 94-142	X	X	X	X	X	X
4. Parent Involvement	X	X	X	X	X	X
5. Professionally Ethical and Unethical Behavior	X	X	X		X	
SECTION II - Identification and Characteristics						
1. Learning Disabled	X	X	X	X	X	X
2. Mentally Retarded	X	X	X	X	X	X
3. Emotionally Disturbed	X	X	X	X	X	X
4. Speech Handicapped	X	X	X	X	X	X
5. Hearing Handicapped	X	X	X	X	X	X
6. Visually Handicapped	X	X	X	X	X	X
7. Physically Disabled/Other Health Impaired	X	X	X		X	X
8. Multihandicapped	X	X	X		X	X
9. Gifted and Talented	X				X	X
10. Prevalency Estimates and Numbers Served by Category Glossary of Categorical Definitions	X				X	X

ABBREVIATED OBJECTIVES	STATES					
	AL	IL	IN	OK	SC	WV
SECTION III - Processing Skills						
1. Auditory Perception Skills	X	X	X	X		X
2. Auditory Receptive Skills	X	X	X	X		X
3. Visual Perception Skills	X	X	X	X		X
4. Integrative Skills	X	X	X	X		X
5. Components of Language	X			X	X	
6. Auditory and Visual Stimuli	X			X		
7. Tactile, Kinesthetic, and Haptic Discrimination	X	X	X	X	X	X
8. Stages of Normal Motor and Language Development	X	X	X	X	X	
SECTION IV - Assessment						
1. Due Process Procedures	X	X	X	X	X	X
2. Group and Individual Tests			X	X	X	
3. Norm-Referenced and Criterion-Referenced Tests	X		X	X	X	X
4. Formal Versus Informal Tests	X	X	X	X	X	X
5. Interindividual and Intraindividual Discrepancies	X		X	X	X	X
6. Test Validity	X		X	X	X	X
7. Test Reliability	X		X	X	X	X
8. Raw Scores and Derived Scores	X		X	X	X	X
9. Test Administration and Interpretation	X		X	X	X	X
10. Feasibility Factors in Selecting Tests	X		X	X	X	X
11. Define and Compare Types of Tests		X	X	X	X	X
12. Intelligence Tests	X	X	X	X	X	X
13. Achievement and Diagnostic Tests	X	X	X	X	X	X
14. Adaptive Behavior Measures	X	X	X		X	X
15. Visual-Motor, Auditory Perception, Motor Proficiency	X	X	X	X	X	X
16. Language and Speech Tests	X	X	X	X	X	X
17. Auditory Acuity	X	X	X	X	X	X
18. Visual Acuity	X	X	X	X	X	X
19. Vision and Hearing Tests	X	X	X	X	X	X
20. Social Behavior	X	X	X	X	X	X
21. Systematic Observation-Academic and Social Assessment	X			X	X	X
SECTION V - Learning Theory						
1. Selection of Behavior Modification Procedures	X		X	X	X	X
2. Primary Reinforcers			X	X	X	X
3. Secondary Reinforcers			X	X	X	X
4. Advantages and Disadvantages for Types of Reinforcers	X		X	X	X	X

ABBREVIATED OBJECTIVES	STATES					
	AL	IL	IN	OK	SC	WV
5. Schedules of Reinforcement	X		X	X	X	X
6. Punishment Techniques	X		X	X	X	X
7. Contingency Management	X		X	X	X	X
8. Backward Chaining	X		X	X	X	
9. Dimensions of Discrimination Tasks	X		X	X	X	
10. Transfer of Learning and Development of Generalization	X		X	X	X	X
11. Observational Learning	X		X	X	X	X
12. Acquisition of New Concepts	X		X	X	X	X
13. Storage, Rehearsal, and Retrieval of Information	X		X	X	X	
SECTION VI - Teaching Strategies						
1. Individual Learning Styles		X	X			X
2. Learning Environments	X		X	X		X
3. Selective Attention	X		X	X	X	X
4. Task Analysis and Criterion Measurement	X	X	X	X	X	X
5. Task Levels of Difficulty	X	X	X	X	X	X
6. Rate of Learning	X		X	X	X	X
7. Intentional Learning and Memory Categories	X		X	X	X	X
8. Massed and Distributed Practice	X		X	X	X	X
9. Alternative Response Patterns				X	X	X
10. Independent Learners	X		X	X		
11. Communication Between Sender and Receiver		X	X		X	
12. Response to Underlying Feelings		X	X		X	
13. Immediate and Delayed Feedback		X	X		X	
14. Facilitation of Positive Student Behavior	X	X	X	X	X	X
15. Development of Responsible Behavior	X	X	X	X	X	X
SECTION VII - Instructional Content						
1. Stages of Cognitive Development	X	X		X	X	X
2. Relationship Between Reading and Preread-ing Skills	X	X		X		X
3. Basic Reading Skills and Teaching Techniques	X	X		X		X
4. Levels of Comprehension Skills		X		X		X
5. Analysis and Synthesis				X		X
6. Purposes for and Levels of Reading	X			X		X
7. Development of Math Readiness Skills	X	X		X		X
8. Development of Number Concepts	X	X		X		X
9. Basic Math Operations and Teaching Techniques	X	X		X		X
10. Problem-Solving Math Skills	X	X		X		X
11. Language Usage and Math Instruction	X	X		X		X
12. Components of Written Language	X	X		X		X

ABBREVIATED OBJECTIVES	STATES					
	AL	IL	IN	OK	SC	WV
13. Development of Language Skills		X		X	X	X
14. Development of Social-Interpersonal Skills	X	X	X			X
SECTION VIII - Instructional Materials						
1. Selection and Evaluation of Core Materials	X		X	X	X	X
2. Instructional Versus Functioning Levels	X		X	X	X	X
3. Relevance and Utility of Instructional Materials	X		X	X	X	X
4. Cost, Quality, and Durability of Materials	X		X	X	X	X
5. Ease of Storage and Availability of Materials	X		X	X	X	X
6. Games, Teaching Aids, and Equipment	X		X	X	X	X
SECTION IX - Administrative Alternatives						
1. Types of Special Class Placement	X	X	X	X	X	X
2. Regular Classroom			X	X	X	X
3. Regular Classroom with Consultant			X	X	X	X
4. Resource Room	X		X	X	X	X
5. Full-Time Instruction	X		X	X	X	X
6. Special School	X		X	X	X	X
7. Vocational Training	X	X	X	X		
SECTION X - Ancillary Services						
1. Referral for Special Education Services	X	X	X	X	X	X
2. Support Service Personnel	X	X	X	X	X	X
3. In-Service Training	X		X	X		X
4. Professional Organizations	X	X	X	X	X	X
5. Professional Publications	X	X	X	X		X
6. Community-Based Facilities	X	X	X	X	X	X
7. Community Family Services	X	X	X	X	X	

RESULTS

Ten content areas are included in the clusters of special education objectives used to measure professional knowledge competencies of teachers of students with behavioral disorders. Background knowledge/historical perspectives, processing skills, and learning theories represent foundation areas of knowledge. Assessment and identification/characteristics objectives include information about various kinds of tests used to place different classifications of students in special education categories. Knowledge of instructional content, instructional materials, and teaching strategies was measured by items in areas such as basic academic skills, selecting core materials, evaluating materials, using games, and selecting appropriate management methods. Knowledge about administrative arrangements and ancillary services was also included in the objectives of states measuring competence of teacher of students with

behavioral disorders.

In 6 states (i.e., Alabama, Illinois, Indiana, Oklahoma, South Carolina, and West Virginia) knowledge about the specific exceptionality of behavioral disorders is assessed in the teacher competency testing program. Levels of emphasis among and within knowledge areas vary. For example, demonstrating competence in content areas of instructional materials, basic knowledge/historical aspects, processing skills, assessment, ancillary services, and identification/characteristics was identified on test specifications for at least 83% of these states. To a lesser extent (e. g., in 67-83% of the states) content was included in the areas of teaching strategies, learning theories, administrative alternatives, and instructional content.

While all areas of instructional materials (e.g., selecting and evaluating, cost, quality and durability, games, teaching aids and equipment)were included in all states, interesting variance was evident within other sections of the test specifications. For example, items addressing identification and characteristics of high incidence conditions (e.g., LD, ED, MR, SI) were noted in all states with specific emotionally disturbed identification and characteristics test requirements. However, characteristics of multihandicapped and gifted/talented students were included to a lesser extent (e.g., 0-67% of the same states). Relative to processing skills, knowledge of the stages of normal motor and language development was included more often than activities to evaluate various perceptual abilities (e.g., auditory perception, visual perception). Of the basic knowledge/historical aspects area, knowledge of professionally ethical behavior was identified by less states than major historical developments, special education philosophy, principles of Public Law 94-142, or parent involvement. Relative to assessment, knowledge about specific types of tests (e.g., social behavior, visual acuity, language) was included more often than knowledge about technical adequacy of psychoeducational assessment devices.

Teachers of students with behavior problems are expected to know more about facilitating positive social behaviors and analyzing learning tasks than about analyzing learning environments or learning styles. Knowledge about establishing an effective management programs—much as selecting behavior modification procedures, identifying reinforcers, identifying advantages of different types of reinforcers, and selecting punishment techniques—was included in objectives of 5 of the 6 states. Communication skills (e.g., responding to underlying feelings) were identified in the objectives of less (50%) states.

Similar numbers of states (i.e., 83-100%) included objectives addressing types of special class placements (e.g., resource rooms, self-contained classrooms) and types of support services available for students with behavioral disorders, Knowledge about in service training was the only administrative alternative or ancillary service objective to be identified by less than 83% of the states. Most states expect teachers of students with behavioral disorders to know the different types of classroom alternatives (e.g., resource rooms, regular classroom with consultation), the different professional journals and

organizations, and the different types of community-based facilities and services that are available.

CONCLUSIONS

More states are expected to follow the trend of competency testing in the specialty areas of teachers. In some states litigation has been filed charging invalid uses of customized teacher competency tests. It is predicted that more states, like Georgia, will develop their own tests or will join in the coalition of states adopting one or more of the nine special education tests available through ETS (e.g, Emotionally Disturbed).

Several issues must be addressed by states as they refine their programs for testing the competency of teachers. Are tests being administered to appease the public, or is quality education the real goal? How does testing influence teachers' willingness to continue to work with students who are difficult to teach (e.g., those with behavior problems)? Will higher standards decrease the pool of minority candidates going into special education? What other factors relating to job attraction can be used to outweigh the standards issue? More importantly, perhaps, decisions need to be made about the overall types of tests appropriate for assessing teacher competence. Finally, as more states join the teacher competency testing movement, demands will be made by educators for an agreement on reciprocity. A number of states have established an Interstate Certification Compact based on study and/or experience completed in one state being accepted as satisfying another state's study and experience requirements. This will also need to be addressed in relation to reacher competency testing within specialty areas such as special education. Some states are considering using the NTE special education categorical tests, such as the test for Teaching Emotionally Disturbed Students, for this reason.

Shanker (1986) forecasts an eventual national teacher examination similar to those used for legal and medical licensure. The examination would be developed by a commission composed of outstanding educators and similarly qualified people in other professions who have had some experience in administering professional examinations. To update and administer the examination, it is further recommended that there be a national teachers' professional practices board composed of teacher practitioners. Some special educators envision The Council for Exceptional Children (CEC) as the ultimate overseer of a national test in special education should one be required. Weintraub (1987) purports this body to be the most qualified to monitor the certification of special educators.

Whoever is charged with development of a national special education teacher competency test, it is clear that the movement will be a concern for the future. At present, 25 states and the District of Columbia are actively planning, validating, or implementing specialty tests related to categories in special education, and 5 states have published criteria in the form of objectives which identify content specific to teaching in the special education field of behavioral disorders/emotional disturbance. An analysis of these objectives

completed across knowledge areas and among these states showed much similarity in what teachers of disturbed students are expected to know. The task of organizing and presenting this content in a uniform, competency-based fashion in colleges of education remains

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Roberta S. Ramsey, Department of Special Education, Albany State College, Albany, Georgia 31705.

Bob Algozzine, Department of Special Education, University of North Carolina at Charlotte, Charlotte, North Carolina 28223.

April Stephens, University of North Carolina at Charlotte, Charlotte, North Carolina 28223.

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